STIC Search Report
EIC 3700

STIC Database Tracking Number: 158792

TO: Andrea Ragonese
Location: RND 7c59
Art Unit: 3743

Case Serial Number: 10/624915

From: Jeanne Horrigan
Location: RND 8A34
Phone: 571-272-3529

jeanne.horrigan@uspto.gov

Search Notes

Attached are the search results for the oropharyngeal implant.

A lot of the results discuss "mandibular positioning devices," and I wasn't sure about their relevance. It looked to me that they were in the oropharyngeal region, but because there were so many articles on these, I did not tag them. I did tag the items that I thought were most relevant, but I suggest that you review ALL of the results.

Also attached is a search feedback form. Completion of the form is voluntary. Your completing this form would help us improve our search services.

I hope the attached information is useful. Please feel free to contact me if you have any questions or need additional searching on this application.

JH

A61M016/00
2004 0134491 128/200.24

Solomon, Terrance

From: Unknown@Unknown.com
Sent: Monday, July 11, 2005 1:55 PM
To: STIC-EIC3700
Subject: Generic form response

ResponseHeader=Commercial Database Search Request

AccessDB#= 158792

LogNumber= _____

Searcher= Janice Horrigan

SearcherPhone= 23529

SearcherBranch= _____

MyDate=Mon Jul 11 13:54:00 EDT 2005

submitto=STIC-EIC3700@uspto.gov

Name=Andrea Ragonese

Empno=77465

Phone=571-272-4804

Artunit=3743

Office=RND 7C59

Serialnum=10624915

PatClass=128/220.24

Earliest=12/30/02

Format1=paper

Searchtopic=This is a sleep apnea/anti-snoring method and device (see claims from April 28, 2005) that can be surgically inserted into the oropharyngeal region of a human or animal.

Comments=

send=SEND

STIC Search Results Feedback Form

EIC 3700

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact*:**

John Sims, EIC 3700 Team Leader
RND 8B35, Phone 2-3507

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 3730*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found**:*
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC3700 RND 8B31

```
File 350:Derwent WPIX 1963-2005/UD,UM &UP=200546
         (c) 2005  Thomson Derwent
File 349:PCT FULLTEXT 1979-2005/UB=20050721,UT=20050714
         (c) 2005 WIPO/Univentio
File 348:EUROPEAN PATENTS 1978-2005/Jul W02
         (c) 2005 European Patent Office
Set     Items   Description
S1         23   AU='PFLUEGER D R' OR AU='PFLUEGER D RUSSELL'
S2         70   AU='THOMPSON C' OR AU='THOMPSON C P'
S3          0   E3OR E9
S4         26   AU='THOMPSON CHRISTOPHER' OR AU='THOMPSON CHRISTOPHER PAUL'
S5       4069   APNEA OR APNE?
S6       3105   SNOR???
S7          3   S1:S4 AND S5:S6
S8      11286   OROPHARYN? OR PHARYN?
S9          0   (S1:S4 AND S8) NOT S7

7/3,AB,IC/1     (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005  Thomson Derwent. All rts. reserv.
016367031
WPI Acc No: 2004-524938/200450
XRAM Acc No: C04-193122
XRPX Acc No: N04-416050
  Apparatus for treating sleep  apnea  and/or  snoring  comprises an
  appliance in non-circumferential form and placed in oropharyngeal region
  in proximity to epiglottis
Patent Assignee: QUIESCENCE MEDICAL INC (QUIE-N); QUIESCENCE MEDICAL
  (QUIE-N)
Inventor:  PFLUEGER D R ;  THOMPSON C P
Number of Countries: 107  Number of Patents: 003
Patent Family:
Patent No      Kind   Date     Applicat No     Kind   Date      Week
US 20040134491  A1  20040715  US 2002436945    P   20021230  200450  B
                              US 2002437058    P   20021230
                              US 2003624915    A   20030722
WO 200460311    A2  20040722  WO 2003US41560   A   20031230  200450
AU 2003300063   A1  20040729  AU 2003300063    A   20031230  200477
Priority Applications (No Type Date): US 2003624915 A 20030722; US
  2002436945 P 20021230; US 2002437058 P 20021230
Patent Details:
Patent No  Kind Lan Pg   Main IPC     Filing Notes
US 20040134491 A1     29 A61M-016/00   Provisional application US 2002436945
                                       Provisional application US 2002437058
WO 200460311  A2 E      A61K-000/00
   Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ
   CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID
   IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
   NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA
   UG US UZ VC VN YU ZA ZM ZW
   Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR
   GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR
   TZ UG ZM ZW
AU 2003300063 A1       A61M-016/00   Based on patent WO 200460311
Abstract (Basic): US 20040134491 A1
Abstract (Basic):
```

NOVELTY - An apparatus (10) comprises an appliance in non-circumferential form with rounded, spaced apart end portions placed in oropharyngeal region (1a) in proximity to epiglottis (2c).

USE - For treating sleep **apnea** and/or **snoring** by maintaining patency of a human or animal oropharyngeal region (claimed).

ADVANTAGE - The apparatus is relatively straightforward to use and minimally invasive. The appliance is structured to provide an enhanced compliance with normal, healthy functioning of the oropharyngeal region of a patient relative to different device e.g. a stent. The appliance provide support against collapse of the oropharyngeal region during natural sleep as well as allow proper closure of an airway in the oropharyngeal region during swallowing, provide natural movement of the epiglottis when positioned in oropharyngeal region. When released into the pharengeal region, the appliance unfolds, unrolls or uncoils and provides pressure against one or more portions of the pharyngeal region providing support thereby maintaining or achieving patency of the pharyngeal region. The apparatus does not interfere with swallowing, respiration, vocalization, mucociliary function, epiglottis functioning etc.

DESCRIPTION OF DRAWING(S) - The figure shows an apparatus positioned in an oropharyngeal region of a patient.

oropharyngeal region (1a)
tongue (2a)
lateral walls (2b)
epiglottis (2c)
posterior wall (2d)
valecullar space (2e)
base (2f)
apparatus. (10)
pp; 29 DwgNo 1/28

International Patent Class (Main): A61K-000/00; A61M-016/00

```
File 155:MEDLINE(R) 1951-2005/Jul W3
         (c) format only 2005 The Dialog Corp.
File   5:Biosis Previews(R) 1969-2005/Jul W3
         (c) 2005 BIOSIS
File  73:EMBASE 1974-2005/Jul 22
         (c) 2005 Elsevier Science B.V.
File  34:SciSearch(R) Cited Ref Sci 1990-2005/Jul W3
         (c) 2005 Inst for Sci Info
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
Set     Items   Description
S1          2   AU=PFLUEGER D?
S2      11271   AU=THOMPSON C?
S3          1   AU='PFLEUGER D R'
S4      81637   APNE? OR SNOR?
S5         12   S1:S3 AND S4
S6     128126   OROPHARYN? OR PHARYN?
S7          7   S1:S3 AND S6
S8         19   S5 OR S7
S9         10   RD (unique items)
S10        10   Sort S9/ALL/PY,A

 10/6/1     (Item 1 from file: 73)
03671037     EMBASE No: 1988120473
  Osmoregulation of thirst
  1988

 10/6/3     (Item 3 from file: 155)
10529325   PMID: 8114658
  Kangaroo care: research results, and practice implications and
guidelines.
Feb 1994

 10/6/4     (Item 4 from file: 34)
05710585   Genuine Article#: WR780   Number of References: 26
Title: High-yield expression, purification, and characterization of active,
    soluble Bacteroides fragilis metallo-beta-lactamase, CcrA  (ABSTRACT
    AVAILABLE)
Publication date: 19970400

 10/6/5     (Item 5 from file: 73)
07819663     EMBASE No: 1999292104
  Glyceryl trinitrate and ritodrine in tocolysis: An international
multicenter randomized study
  1999

 10/6/6     (Item 6 from file: 155)
13960428   PMID: 11715819
  Oral prodrug enters cephalosporin market.
Nov 1 2001

 10/6/8     (Item 8 from file: 155)
15077200   PMID: 14633593
  Absence of human papillomavirus in tonsillar squamous cell carcinomas
from Chinese patients.
Dec 2003
```

10/6/10 (Item 10 from file: 155)
15370442 PMID: 15182119
Randomized controlled trial of kangaroo care: cardiorespiratory and thermal effects on healthy preterm infants.
May-Jun 2004

10/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09395820 PMID: 2031080
Hypothalamic syndrome and central sleep apnoea associated with toluene exposure.
Teelucksingh S; Steer C R; **Thompson C J** ; Seckl J R; Douglas N J; Edwards C R
University Department of Medicine, Western General Hospital, Edinburgh.
Quarterly journal of medicine (ENGLAND) Feb 1991, 78 (286) p185-90, ISSN 0033-5622 Journal Code: 0401027
Publishing Model Print
Document type: Case Reports; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Record Date Created: 19910620
Record Date Completed: 19910620

10/7/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013192997 BIOSIS NO.: 200100364836
Sleep Apnea **: Performance and magnetic resonance spectroscopy**
AUTHOR: Bartlett D J (Reprint); Rae C D; **Thompson C H** ; Joffe D; Enright S A; Linklater J; Grunstein R R (Reprint
AUTHOR ADDRESS: Sleep Disorders Service, St Vincents Clinic, Paddington, NSW, Australia**Australia
JOURNAL: Sleep (Rochester) 24 (Abstract Supplement): pA57-A58 April 15, 2001 2001
MEDIUM: print
CONFERENCE/MEETING: 15th Annual Meeting of the Associated Professional Sleep Societies Chicago, Illinois, USA June 05-10, 2001; 20010605
SPONSOR: Associated Professional Sleep Societies
ISSN: 0161-8105
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

10/7/9 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

17498681 PMID: 15511707
Hippocampal area metabolites relate to severity and cognitive function in obstructive sleep apnea .
Bartlett Delwyn J; Rae Caroline; **Thompson Campbell H** ; Byth Karen; Joffe David A; Enright Tony; Grunstein Ron R

Woolcock Institute of Medical Research, University of Sydney, Sydney, NSW, Australia. delwynb@med.usyd.edu.au

Sleep medicine (Netherlands) Nov 2004, 5 (6) p593-6, ISSN 1389-9457
Journal Code: 100898759
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

BACKGROUND AND PURPOSE: Obstructive sleep **apnea** (OSA) is associated with intermittent hypoxia and cognitive decrements. As the hippocampus is particularly susceptible to hypoxia, we hypothesized that it may show biochemical abnormalities, and they may relate to **apnea** severity. PATIENTS AND METHODS: Eight males with OSA and five age-matched controls underwent neurocognitive testing before and after polysomnography and proton magnetic resonance spectra were obtained from the left hippocampal area of all subjects. RESULTS: In the left hippocampal area, N-acetyl-containing/creatine-containing compounds was significantly increased in OSA (P=0.04). Inspection of these compounds with respect to the water resonance indicated that this was most likely due to a decrease in creatine-containing compounds rather than any change in N-acetyl-containing compounds. Lower levels of hippocampal creatine-containing compounds were correlated with worse OSA severity and neurocognitive performance. CONCLUSIONS: We suggest the changes in creatine levels in the hippocampal area represent adjustments to brain bioenergetics, similar to those seen in ischemic preconditioning, and may reflect the different susceptibility of these tissues to hypoxic damage in OSA.

Record Date Created: 20041029
Record Date Completed: 20050322

Non-patent literature

```
File 155:MEDLINE(R) 1951-2005/Jul W3
         (c) format only 2005 The Dialog Corp.
Set     Items   Description
S1      11460   'SLEEP APNEA SYNDROMES' OR DC='C10.886.425.800.75
             ='C8.618.85.852.' OR 'APNEA, SLEEP' OR 'HYPERSOMNIA
             ODIC RESPIRATION' OR 'SLEEP-DISORDERED BREATHING' OI
             KIAN SYNDROME' OR 'SLEEP APNEA, CENTRAL' OR R11
S2        434   'PICKWICKIAN SYNDROME' OR DC='C18.654.726.500.69
             'C8.618.85.852.741.'
S3       2863   'SNORING' OR DC='C23.888.852.779.850.'
S4       2863   SNORING
S5        328   SNORE? ?
S6       4977   'OROPHARYNX' OR DC='A14.724.603.' OR DC='A4.623.
S7       8884   OROPHARYNX OR OROPHARYNGEAL
S8    1033509   SURGERY/DE
S9        110   S1:S5 AND S6:S7 AND S8
S10       202   S6(L)SURGERY
S11        26   S9 AND S10

 11/9/3
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.
15028602   PMID: 14574285
```

The efficacy of anatomically based multilevel surgery for obstructive sleep apnea.

Kao Yi H; Shnayder Yelizaveta; Lee Kelvin C

Department of Otolaryngology, NYU School of Medicine, 530 First Ave, Suite 3-C, New York, NY 10016, USA.

Otolaryngology--head and neck surgery - official journal of American Academy of Otolaryngology-Head and Neck Surgery (United States) Oct 2003, 129 (4) p327-35, ISSN 0194-5998 Journal Code: 8508176

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Subfile: INDEX MEDICUS

OBJECTIVE: Most reports in the literature focus on the efficacy of a single procedure for obstructive sleep apnea (OSA). We review the overall efficacy of a surgical methodology based on localizing the level of anatomic obstruction for each patient and surgical correction of the nasal, **oropharyngeal**, or hypopharyngeal obstruction. Study design and setting Retrospective review of cases performed by a single practitioner using a systematic approach to surgery for OSA with preoperative and postoperative sleep studies. RESULTS: Forty-two patients with a respiratory disturbance index (RDI) greater than 15 were included in the study. Surgery involved at least 2 levels of obstruction usually performed in 2 stages. All patients reported symptomatic improvement. Overall, 83.3% (35 of 42) of patients were cured according to the accepted RDI criteria of more than 50% reduction and final RDI of less than 20. All 21 patients with mild OSA (RDI, <29), 73% of patients with moderate OSA (RDI, 30 to 49), and 50% of patients with severe OSA (RDI, >50) were cured. CONCLUSION: The use of an anatomically based methodology in approaching patients with OSA seems to offer a higher efficacy than a single procedure as reported in the literature.

Tags: Female; Male

Descriptors: *Hypopharynx--anatomy and histology--AH; *Hypopharynx--**surgery** --SU; * **Oropharynx** --anatomy and histology--AH; * **Oropharynx** --**surgery** --SU; *Otorhinolaryngologic Surgical Procedures--methods--MT; * **Sleep Apnea, Obstructive** -- **surgery** --SU; Adolescent; Adult; Body Mass Index; Body Weight; Disorders of Excessive Somnolence--epidemiology--EP; Humans; Middle Aged; Positive-Pressure Respiration--methods--MT; Postoperative Care; Preoperative Care; Retrospective Studies; Severity of Illness Index; **Sleep Apnea, Obstructive** --epidemiology--EP; **Sleep Apnea, Obstructive** --therapy--TH; **Snoring** --diagnosis--DI; **Snoring** --epidemiology--EP

Record Date Created: 20031023

Record Date Completed: 20031112

11/9/4

DIALOG(R)File 155:MEDLINE(R)

14829284 PMID: 12800790

Surgical management of obstructive sleep apnea.

Li Kasey K

Stanford University Sleep Disorders and Research Center, 401 Quarry Road, Stanford, CA 94305, USA. kaseyli@hotmail.com

Clinics in chest medicine (United States) Jun 2003, 24 (2) p365-70, ISSN 0272-5231 Journal Code: 7907612

Publishing Model Print

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Subfile: INDEX MEDICUS

Nasal CPAP is and should be the first-line treatment for OSA. Any physician who uses nasal CPAP undoubtedly recognizes that this treatment modality has limitations, however. The authors believe that surgery offers a viable alternative to nasal CPAP in patients who are intolerant of nasal CPAP. Potential risks and complications must be explained fully to any potential surgical candidate. The selection of surgical procedure(s) should be determined based on a patient's airway anatomy, medical status, severity of sleep apnea, and his or her desire and preference. (25 Refs.)

Descriptors: ***Sleep Apnea, Obstructive** -- **surgery** --SU; Clinical Trials; Humans; Hypopharynx--radiography--RA; Hypopharynx--**surgery** --SU; Laryngoscopy--methods--MT; Oral Surgical Procedures--methods--MT; **Oropharynx** --radiography--RA; **Oropharynx** -- **surgery** --SU; **Sleep Apnea, Obstructive** --diagnosis--DI

Record Date Created: 20030612

Record Date Completed: 20030702

11/9/5

DIALOG(R)File 155:MEDLINE(R)

13946053 PMID: 11699232

Dentistry's role in the management of sleep disorders. Recognition and management.

Bailey D R; Attanasio R

University of Colorado, School of Dentistry, Denver, Colorado, USA. RMC4E@aol.com

Dental clinics of North America (United States) Oct 2001, 45 (4) p619-30, ISSN 0011-8532 Journal Code: 0217440
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: DENTAL; INDEX MEDICUS

Nearly every practitioner in dentistry, no matter what his or her specialty or special interest, may have a potential role in the management of patients with a sleep disorder, particularly **snoring** and sleep apnea. More important, every dentist as a practitioner in the health care field should be able to assist the patient who is identified with a potential sleep disorder by making recommendations, referrals, or participating in the overall management. Sleep is essential to life and to overall health. Involvement by dentists is another step in the development of a closer relationship between dentists and their medical colleagues. The treatment of sleep apnea may be more successful, both in efficacy and compliance, if dentists and sleep specialists collaborate closely. The importance of this collaboration is certainly indicated by the creation of a Section on Oral Appliances within the American Academy of Sleep Medicine (AASM), which further unifies dentistry and medicine. Many dentists are not familiar with sleep medicine, its magnitude, and the prevalence of sleep disorders. To assist those looking to expand their knowledge, the pertinent organizations are listed in Appendix A, and a number of sleep-related organizations and websites are listed in Appendix B. It is up to each individual practitioner, in medicine and dentistry, to develop a better awareness of the field of sleep, its effect on a person's overall health, and how a person's quality of life can be improved by a better night's rest.

Descriptors: *Professional Role; *Sleep Disorders; *Specialties, Dental; Humans; Mandibular Advancement; Occlusal Splints; **Oropharynx** -- **surgery** --SU; Patient Care Team; Sleep Disorders--diagnosis--DI; Sleep Disorders --therapy--TH; Societies, Medical
Record Date Created: 20011108
Record Date Completed: 20020103

11/9/6
DIALOG(R)File 155:MEDLINE(R)

13454121 PMID: 10419582
Treatment of obstructive sleep apnea.
Hudgel D W; Auckley D H
Pulmonary Division Sleep Disorders Program, MetroHealth Medical Center, Cleveland, Ohio 44109-1998, USA.
Respiratory care clinics of North America (UNITED STATES) Sep 1999, 5 (3) p379-94, viii, ISSN 1078-5337 Journal Code: 9612026
Publishing Model Print
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS

Options for the treatment of obstructive sleep apnea are varied and ever-expanding. This article reviews the currently available treatment modalities in an evidence-based format. Focus is placed on the efficacy and

limitations of each particular therapy. (75 Refs.)
Descriptors: ***Sleep Apnea Syndromes** --therapy--TH; Humans; **Oropharynx** -- **surgery** --SU; Orthodontic Appliances, Removable; Positive-Pressure Respiration; **Sleep Apnea Syndromes** --drug therapy--DT; **Sleep Apnea Syndromes** -- **surgery** --SU; Weight Loss
Record Date Created: 19990930
Record Date Completed: 19990930

11/9/7
DIALOG(R)File 155:MEDLINE(R)

13424541 PMID: 10385536
Oropharyngeal **surgery in the management of upper airway obstruction during sleep.**
Coleman J; Rathfoot C
Nashville Ear, Nose, and Throat Clinic, Nashville, Tennessee 37203-1632, USA.
Otolaryngologic clinics of North America (UNITED STATES) Apr 1999, 32 (2) p263-76, ISSN 0030-6665 Journal Code: 0144042
Publishing Model Print
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
In the surgical management of **snoring** and sleep apnea, surgery to the **oropharynx** was the initial procedure used to treat sleep-related disorders. This article reviews both the various procedures available for this and the benefits and drawbacks of these procedures so the practitioner may be able to choose which type would be most beneficial for a particular patient. (33 Refs.)
Descriptors: *Airway Obstruction-- **surgery** --SU; * **Oropharynx** -- **surgery** --SU; * **Sleep Apnea Syndromes** -- **surgery** --SU; * **Snoring** -- **surgery** --SU; Humans; Postoperative Complications; Uvula-- **surgery** --SU
Record Date Created: 19990712
Record Date Completed: 19990712

11/9/11
DIALOG(R)File 155:MEDLINE(R)

11500577 PMID: 8811823
Surgical management of obstructive sleep apnea.
Tiner B D
Department of Oral and Maxillofacial Surgery, University of Texas Health Science Center at San Antonio 78284-7908, USA.
Journal of oral and maxillofacial surgery - official journal of the American Association of Oral and Maxillofacial Surgeons (UNITED STATES) Sep 1996, 54 (9) p1109-14, ISSN 0278-2391 Journal Code: 8206428
Publishing Model Print
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: AIM; DENTAL; INDEX MEDICUS

(36 Refs.)
Descriptors: ***Sleep Apnea Syndromes** -- **surgery** --SU; Glossectomy; Humans ; Laser **Surgery** ; Mandible-- **surgery** --SU; Nasal Obstruction-- **surgery** --SU; Neck Muscles-- **surgery** --SU; **Oropharynx** -- **surgery** --SU; Tracheostomy
Record Date Created: 19961016
Record Date Completed: 19961016

11/9/19
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.
07961108 PMID: 3618182
Cephalometric analysis and surgical treatment of patients with obstructive sleep apnea syndrome. A preliminary report.
Djupesland G; Lyberg T; Krogstad O
Acta oto-laryngologica (SWEDEN) May-Jun 1987, 103 (5-6) p551-7, ISSN 0001-6489 Journal Code: 0370354
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Oropharyngeal soft tissue profiles were studied by cephalometric analysis in 25 patients with obstructive sleep apnea syndrome (OSAS) and 10 controls. The length of the soft palate was significantly longer in patients (mean 48 mm) than in controls (mean 35 mm), as was the distance of close contact between the tongue and the soft palate. The thickness of the soft palate measured in the midsagittal plane was larger (mean 14 mm) than in the control group (mean 11 mm). The hyoid bone was more inferiorly positioned in patients than in controls, apparently giving the tongue a more upright position with more of the tongue tissue at the hypopharyngeal level than found in normals. In patients, the nasopharyngeal airway space, as well as the **oropharyngeal** airway space, had significantly reduced anteroposterior dimensions. Based on these data a new and modified surgical technique for treatment of OSAS patients has been developed. The surgical procedure is described, and some preliminary results concerning the effect of this operation in 16 patients are reported.
Tags: Male
Descriptors: ***Oropharynx** -- **surgery** --SU; * **Sleep Apnea Syndromes** -- **surgery** --SU; Adult; Aged; Cephalometry; Humans; Middle Aged; **Oropharynx** --anatomy and histology--AH; **Sleep Apnea Syndromes** --radiography--RA
Record Date Created: 19870911
Record Date Completed: 19870911

11/9/23
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.
06912010 PMID: 6702191
A surgical treatment for snoring **and obstructive sleep apnea.**
Simmons F B; Guilleminault C; Miles L E
Western journal of medicine (UNITED STATES) Jan 1984, 140 (1) p43-6, ISSN 0093-0415 Journal Code: 0410504
Publishing Model Print

Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Descriptors: ***Oropharynx** -- **surgery** --SU; *Palate, Soft-- **surgery** --SU; *Respiratory Sounds-- **surgery** --SU; * **Sleep Apnea Syndromes** -- **surgery** --SU ; * **Snoring** -- **surgery** --SU; Humans; **Snoring** --physiopathology--PP
Record Date Created: 19840406
Record Date Completed: 19840406

11/9/24

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.
06663048 PMID: 6870642
Surgical treatment of sleep apnea.
Borowiecki B D; Sassin J F
Archives of otolaryngology (Chicago, Ill. - 1960) (UNITED STATES) Aug 1983, 109 (8) p508-12, ISSN 0003-9977 Journal Code: 0376526
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: AIM; INDEX MEDICUS
Contemporary surgical techniques and the preoperative and postoperative treatment of patients with this condition were analyzed, based on surgical treatment of 51 cases of obstructive sleep apnea syndrome (OSAS) and review of the relevant literature. The results indicate the permanent tracheostomy remains the established and highly successful method of treatment of carefully chosen patients with OSAS. Palatopharyngoplasty may also prove useful in treating certain select cases of OSAS, although careful analysis of a large number of successful cases followed up over an extended period of time will be needed. The development of new, effective surgical procedures in the treatment of OSAS depends on a complete understanding of the mechanisms involved in each individual airway obstruction.
Tags: Female; Male
Descriptors: ***Oropharynx** -- **surgery** --SU; * **Sleep Apnea Syndromes** -- **surgery** --SU; *Tracheotomy--methods--MT; Adult; Humans; Methods; Postoperative Complications; **Sleep Apnea Syndromes** --physiopathology--PP
Record Date Created: 19830826
Record Date Completed: 19830826

11/9/25

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.
06663047 PMID: 6870641
Snoring , **and some obstructive sleep apnea, can be cured by** oropharyngeal **surgery.**
Simmons F B; Guilleminault C; Silvestri R
Archives of otolaryngology (Chicago, Ill. - 1960) (UNITED STATES) Aug 1983, 109 (8) p503-7, ISSN 0003-9977 Journal Code: 0376526
Publishing Model Print
Document type: Journal Article

Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: AIM; INDEX MEDICUS
Surgical resection of physiologically unneeded palate and **oropharyngeal** tissue can completely stop a large part of social **snoring** problems and benefit at least 50% of persons with the obstructive sleep apnea syndrome. We report detailed results of the conditions of 28 patients who underwent 50 palatopharyn-goplasty (PPD) operations done by us since the concept was introduced two years ago. The results clearly prove that the social **snoring** problem of most patients can be fixed. The results are inconclusive as to just how PPP surgery fits into predictive management of sleep apnea. For some patients it is an effective alternative to tracheotomy.
Descriptors: ***Oropharynx** -- **surgery** --SU; *Palate, Soft-- **surgery** --SU; *Respiratory Sounds-- **surgery** --SU; * **Sleep Apnea Syndromes** -- **surgery** --SU ; * **Snoring** -- **surgery** --SU; Humans; Methods
Record Date Created: 19830826
Record Date Completed: 19830826

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File 155:MEDLINE(R) 1951-2005/Jul W4
         (c) format only 2005 The Dialog Corp.
File   5:Biosis Previews(R) 1969-2005/Jul W3
         (c) 2005 BIOSIS
File  73:EMBASE 1974-2005/Jul 25
         (c) 2005 Elsevier Science B.V.
File  34:SciSearch(R) Cited Ref Sci 1990-2005/Jul W3
         (c) 2005 Inst for Sci Info
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File 144:Pascal 1973-2005/Jul W3
         (c) 2005 INIST/CNRS
File  94:JICST-EPlus 1985-2005/Jun W1
         (c)2005 Japan Science and Tech Corp(JST)
File  95:TEME-Technology & Management 1989-2005/Jun W3
         (c) 2005 FIZ TECHNIK
File  99:Wilson Appl. Sci & Tech Abs 1983-2005/Jun
         (c) 2005 The HW Wilson Co.
File   6:NTIS 1964-2005/Jul W3
         (c) 2005 NTIS, Intl Cpyrght All Rights Res
File   8:Ei Compendex(R) 1970-2005/Jul W3
         (c) 2005 Elsevier Eng.  Info. Inc.
File  65:Inside Conferences 1993-2005/Jul W3
         (c) 2005 BLDSC all rts. reserv.
File  35:Dissertation Abs Online 1861-2005/Jun
         (c) 2005 ProQuest Info&Learning
Set     Items   Description
S1      35328   OROPHARYN?
S2     160941   PHARYN? OR EPIGLOTTI? OR GLOTTI? OR HYOID
S3     431865   PROSTHES?S OR PROSTHETIC? OR ORTHOS?S OR ORTHOTIC?
S4    4322987   INSERT? OR POSITION? OR PLACE? ? OR PLACING OR ARRANG?
S5    1689344   IMPLANT? OR GRAFT???
S6    2234009   APPLIANCE? ? OR DEVICE? ?
S7     579920   NITINOL OR WIRE OR SPRING OR SUPERELASTIC OR SUPER()ELASTIC
S8      89006   APNEA OR SNORING
S9       6781   (OBSTRUCTIVE OR SLEEP()DISORDERED)()BREATHING OR CENTRAL()-
             ALVEOLAR()HYPOVENTILATION
S10      6207   HYPERSOMNIA OR HYPERSOMNOLENCE OR (PICKWICK? OR ONDINE)()S-
             YNDROME
S11     35154   S4:S5(2W)S6:S7
S12       226   (S3 OR S11)(S)S1
S13       687   (S3 OR S11)(S)S2
S14        18   S12 AND S8:S10
S15        43   S13 AND S8:S10
S16         8   RD S14 (unique items)
S17         1   S16/2003:2005
S18         7   S16 NOT S17
S19         7   Sort S18/ALL/PY,A
S20        38   S15 NOT S14
S21        22   RD (unique items)
S22         3   S21/2003:2005
S23        19   S21 NOT S22
S24        19   Sort S23/ALL/PY,A
S25       280   S4:S5(2W)S1
S26      1029   S4:S5(2W)S2
S27        14   S25(S)S8:S10
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S28 14 S27 NOT S14:S15
S29 5 RD (unique items)
S30 5 Sort S29/ALL/PY,A
S31 109 S26(S)S8:S10
S32 103 S31 NOT (S14 OR S15 OR S27)
S33 47 RD (unique items)
S34 60843 (S8/DE OR S9/DE OR S10/DE)
S35 38 S33 AND S34
S36 7 S35/2003:2004
S37 31 S35 NOT S36
S38 31 Sort S37/ALL/PY,A

19/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.
09303433 PMID: 2135417
[Treatment of obstructive sleep apnea with a mandibular repositioning appliance]
Adachi S; Kunisu S; Sugita Y; Teshima Y; Taniguchi M; Sakuda M
Department of Orthodontics, Osaka University Faculty of Dentistry.
Osaka Daigaku shigaku zasshi The journal of Osaka University Dental Society (JAPAN) Jun 1990, 35 (1) p400-9, ISSN 0473-4629
Journal Code: 19430280R
Publishing Model Print
Document type: Journal Article ; English Abstract
Languages: JAPANESE
Main Citation Owner: NLM
Record type: MEDLINE; Completed
A patient with **obstructive sleep apnea** has been treated by means of a mandibular **repositioning appliance** made of silicone rubber. The patient is a male and 54 years old with a slim body and complained a excessive daytime **sleepiness** and unsatisfied **sleep**. A lateral head plate revealed retruded mandible and narrow A-P diameter in the lower part of **oropharynx**. Moderate frequency of **apnea** was found in the initial all-night polysomnographic recording. The mandible has been brought forward by 5 mm and downward by 11 mm, which enlarges the diameter of **oropharynx** anterio-posteriorly by 2-3 mm. Since the **appliance** has been **inserted** during bed-time, the daytime **sleepiness** and unsatisfied **sleep** has been eliminated. The second polysomnographic recording revealed significant increment of deep NREM **sleep** and REM **sleep** and decrement of arousal during **sleep** after **insertion** of the **appliance** . It is indicated, therefore, that the application of the mandibular **repositioning appliance** is one of the effective methods for the treatment of **obstructive sleep apnea** .
Record Date Created: 19920604
Record Date Completed: 19920604

19/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.
09935841 PMID: 1403896
Sleep apnea prosthesis for dentate patients.
Knudson R C; Meyer J B; Montalvo R
Wilford U.S. Air Force Medical Center, Lackland Air Force Base, Tex.
Journal of **prosthetic** dentistry (UNITED STATES) Jul 1992, 68 (1)

p109-11, ISSN 0022-3913 Journal Code: 0376364
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
This article describes clinical and laboratory techniques for the fabrication of a **sleep apnea prosthesis** for a dentate patient. The treatment objective is to posture the mandible at an increased vertical and protrusive **position** to diminish or eliminate the collapse of the base of tongue into the **oropharynx** . During fabrication of the **prosthesis** , cephalograms are used to evaluate spatial change between the base of the tongue and the posterior **pharyn**geal wall.
Record Date Created: 19921120
Record Date Completed: 19921120

19/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11387249 PMID: 8752487
[Treatment of obstructive sleep apnea syndrome with a mandibular positioning device and other nonsurgical modalities]
Sakakibara H; Umemoto M; Kuwahara M; Suetsugu S
Department of Internal Medicine, Fujita Health University School of Medicine.
Nihon Kyobu Shikkan Gakkai zasshi (JAPAN) Dec 1995, 33 Suppl p76-84, ISSN 0301-1542 Journal Code: 7505737
Publishing Model Print
Document type: Clinical Trial; Journal Article ; English Abstract
Languages: JAPANESE
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The therapeutic approach to a patient with **obstructive sleep apnea syndrome** (OSAS) must be individualized because of the heterogeneity in the pathogenesis of the disorder. Although nasal continuous positive airway pressure (CPAP) is effective no matter what the pathogenesis, risk factors for this disorder should be identified in each patient. Nasal CPAP will be discussed by others. Weight loss is one of the best nonsurgical treatments of OSAS and it should be strongly recommended to obese patients with the disorder, even though only a few achieve satisfactory weight reduction. **Sleep**ing in the lateral **position** or upright may be effective in some patients with OSAS. Acetazolamide, medroxyprogesterone, or protriptyline may also have a role in some patients, although the efficacy must be weighed against the considerable side effects. The cross-sectional area of the **oropharynx** measured by computed tomography in patients with OSAS was significantly lower than that in control subjects. Lateral cephalograms revealed a retarded mandible in many patients. A dental **device** designed to advance the mandible 2 to 7 mm and to eliminate the airway obstruction at the base of tongue was used in 20 consecutive patients (17 men and 3 women, average age 53.8 years) to treat the **obstructive sleep apnea** . The body mass index of the patients was 27.6 +/- 4.2 kg/m2 (mean +/- SD). The **device** moved the mandible forward ($p = 0.038$) and increased the airway space in the lower part of the **oropharynx** ($p = 0.031$) as assessed with lateral cephalograms. After nightly use of the **device** for 24 to 211 days, overnight polysomnography was performed for two nights: without the **device** for the

first night and with it for the second night. The **apnea** index was reduced from an average of 30.7 to 18.5 events/hour (60.4% of the pretreatment value, p = 0.004). The number of desaturations (more than 5% decrease from the base line SaO2) decreased and the lowest level of SaO2 increased: from 26.5 to 14.4 events/hour (p = 0.009) and from 63.6 to 70.1% (p = 0.005), respectively. Not every patient improved sufficiently. Eleven of 20 patients were classified as good responders, because of a reduction in **apnea** index of at least 50% of the pretreatment value, and the remaining nine patients were classified as poor responders. Use of the **device** reduced the severity ratings of **snoring** and excessive daytime **sleep**iness not only in the good responders but also in the poor responders. No serious complications were observed. The mandibular **positioning device** is an effective treatment for some patients with OSAS. The effectiveness of the **device** should be predicted from polysomnographic and cephalometric data, and from CT measurements of the upper airway and other characteristics of the patients.

Record Date Created: 19961211
Record Date Completed: 19961211

19/7/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11706754 PMID: 9110629

A three-dimensional airway assessment for the treatment of **snoring and/or sleep apnea with jaw repositioning intraoral appliances: a case study.**

Smith S D
Department of Otorhinolaryngology and Orofacial Plastic Surgery, Philadelphia College of Osteopathic Medicine, Pennsylvania, USA.

Cranio - the journal of craniomandibular practice (UNITED STATES) Oct 1996, 14 (4) p332-43, ISSN 0886-9634 Journal Code: 8609491
Publishing Model Print
Document type: Case Reports; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

The purpose of this **snoring /sleep apnea** study was to assess the role of 3-D magnetic resonance imaging (MRI) of the airway correlated to jaw reposturing/intraoral **appliance** design. A clinical case is presented utilizing this technology, integrating a diagnostic baseline and follow-up **sleep** study/ polysomnograph. The baseline polysomnography, prior to jaw **repositioning appliance** design, indicated a respiratory disturbance index (RDI) of 21.5 hypopnea/**apneas** per hour. The follow-up **sleep** study, with use of an intraoral **repositioning appliance**, showed a 3.9 per hour RDI, an 82% RDI reduction/improvement. Magnetic resonance TMJ and airway images were done. The MRI enhanced airway assessment computer software program analyzed the 3-dimensional volume and cross sectional area changes from hard/soft palate junction to epi**glottis**. Imaged were the **oropharynx** naso**pharynx** and hypo**pharynx** regional anatomy. The baseline, without mandibular **positioning device** , showed a total airway volume of 5,801.31 cubic mm, whereas with the mandibular **positioning device** in **place**, the total airway volume was increased to 8,657.22 cubic mm or a total increased volume of 32%. The largest improvement site in the airway was the mid-soft palatal uvula/naso**pharynx** region, with base of tongue moving forward. Along with

traditional polysomnography, 3-dimensional MRI airway imaging should be considered as a diagnostic procedure in assessing **sleep apnea** patients. The necessity of a combined medical/dental team approach is emphasized.
Record Date Created: 19970428
Record Date Completed: 19970428

19/7/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12445265 PMID: 9757417
[Influence of the Esmarch splint on chewing and tongue muscle activity during sleep]
Einfluss der Esmarch-Schiene auf die Kau- und Zungenmuskelaktivitat wahrend des Schlafens.
Yoshida K
Department of Oral and Maxillofacial Surgery, Faculty of Medicine, Kyoto University.
Der Nervenarzt (GERMANY) Aug 1998, 69 (8) p666-70, ISSN 0028-2804
Journal Code: 0400773
Publishing Model Print
Document type: Journal Article ; English Abstract
Languages: GERMAN
Main Citation Owner: NLM
Record type: MEDLINE; Completed
To clarify the functional mechanism of the Esmarch **device** in the treatment of **sleep apnea** , its effect on muscle activity during **sleep** was studied electromyographically with and without the **appliance** at the inferior head of the lateral pterygoid muscle, the genioglossal muscle, and the masseter muscle in 15 patients with **sleep apnea syndrome**. During the **obstructive apnea** the muscles showed significantly lower amplitudes than before the **apnea** . No significant decrease in the amplitude was observed during the central **apnea** , but, after the **obstructive** and central **apnea** , significantly higher amplitudes were seen than beforehand. The amplitudes rose after the **placement** of the **appliance**, and the amplitudes of the genioglossal and lateral pterygoid muscles during **obstructive apnea** increased significantly after the **insertion** of the **appliance**. The results suggest that the **device** can activate the masticatory and tongue muscle activity and indicate that the muscles activated with the **appliance** can prevent obstruction in the **oropharynx** . The Esmarch **device** not only helps avoid obstruction by mandibular protraction, but also affects function by activating the muscles.
Record Date Created: 19981217
Record Date Completed: 19981217

19/7/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12940896 PMID: 10893096
Treatment, airway and compliance effects of a titratable oral appliance.
Lowe A A; Sjoholm T T; Ryan C F; Fleetham J A; Ferguson K A; Remmers J E
Department of Oral Health Sciences, Faculty of Dentistry, The University of British Columbia, Vancouver, Canada. alowe@interchange.ubc.ca

Sleep (UNITED STATES) Jun 15 2000, 23 Suppl 4 pS172-8, ISSN 0161-8105 Journal Code: 7809084
Publishing Model Print
Document type: Clinical Trial; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
STUDY OBJECTIVES: To measure the effects of a titratable anterior mandibular **repositioner** on airway size and **Obstructive Sleep Apnea** (OSA) and to evaluate its compliance. DESIGN: Before and after **insertion** **sleep** studies were obtained in a total of 38 OSA patients of varying severity from three different sites. Covert compliance was measured by means of a newly-developed, miniaturized, temperature-sensitive, imbedded monitor. Validity testing was completed in six adult volunteers who wore monitors imbedded into small acrylic **appliances**. MEASUREMENTS AND RESULTS: The mean RDI before treatment was 32.6 (SEM 2.1) and after the **insertion** of the **appliance**, the RDI was reduced to 12.1 (SEM 1.7, $p<0.001$). RDI was reduced to less than 15/hour in 80% of a group of moderate OSA patients (RDI 15 to 30) and in 61% of a group of severe OSA patients (RDI > 30) with respect to baseline RDI. Fiber optic video endoscopy was performed on 9 OSA patients with and without the **appliance**. No significant differences in hypo**pharynx** or **oropharynx** cross sectional areas were found, but at the level of the velo**pharynx**, the airway size was significantly increased ($p<0.05$). The index of agreement was 0.99 between the monitor clock time and the subject's log sheets. Compliance data from eight OSA subjects instructed to wear the **appliance** during **sleep** indicated that it was worn for a mean of 6.8 hours with a range of 5.6 to 7.5 hours per night. CONCLUSION: The titratable adjustable mandibular advancement **appliance**, made from thermoelastic acrylic, significantly reduces RDI in moderate to severe OSA patients, has a direct effect on airway size and is well worn throughout the night.
Record Date Created: 20001025
Record Date Completed: 20001025

24/6/14 (Item 14 from file: 94)
04278044 JICST ACCESSION NUMBER: 99A0550825 FILE SEGMENT: JICST-E
Neuropathy with internal medical diseases. Advances in diagnosis and treatments III. Neuropathy accompanied with respiratory system and circulatory system diseases 1. Sleep apnea syndrome., 1999

24/7/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007159557 BIOSIS NO.: 199089077448
TREATMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME
AUTHOR: TOGAWA K (Reprint); MIYAZAKI S; YAMAKAWA K
AUTHOR ADDRESS: DEP OTORHINOLARYGOL, AKITA UNIV SCH MED, AKITA**JAPAN
JOURNAL: Journal of the Japan Broncho-Esophagological Society 40 (5): p 409-415 1989
ISSN: 0029-0645
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: JAPANESE
ABSTRACT: Satisfactory results in the treatment of **obstructive sleep apnea**

syndrome (OSAS) depend on precise diagnosis of the site and the severity of obstruction and application of the proper treatment. History-taking including **sleep** behavior, local and general physical examinations, X-ray examination, fluoroscopy, fiberscopy, polysomnography give use very useful informations for this decision. Among these, polysomnography is the most useful. OSAS is treated conservatively or operatively as indicated case to case. Among the conservative treatments, body weight reduction with hypocaloric diet is essential in the obese. Nasal CPAP is widely used and known to be effective, however, its long-lasting use is problematic. Medications of antibiotics and antiallergica are useful for reduction of mucosal swelling caused by inflammatory and allergic reactions. Application of a dental **prosthesis** protruding the mandible is effective. Among the surgical treatments adenotonsillectomy is mainly performed on the infants and children with OSAS. If OSAS is created by intranasal pathologies, intranasal surgeries of various types are applied. When the causative region exists in the palato- **pharynx** , UPPP is very effective. Tracheostomy gives an instant relief on heavy **obstructive** dyspnea. If we encounter such heavily disturbed cases, we should not hesitate to do tracheostomy.

24/7/2 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus

01025529 JICST ACCESSION NUMBER: 90A0396058 FILE SEGMENT: JICST-E
Treatment of obstructive sleep apnea following pharyngeal flap operation with palatal lift prosthesis .
TACHIMURA TAKASHI (1); WADA TAKESHI (1); HAMAGUCHI MUNEHIRO (2); KOGO MIKIHIKO (2); MATSUYA TOKUZO (2); TAKADA KENJI (2); NISHIO JUNTARO (3)
(1) Osaka Univ., Dental School, Hospital; (2) Osaka Univ., Dental School ; (3) Osaka Police Hospital
Nippon Kogairetsu Gakkai Zasshi(Journal of Japanese Cleft Palate Association), 1990, VOL.15,NO.1, PAGE.29-44, FIG.13, TBL.1, REF.29
JOURNAL NUMBER: Y0100AAD ISSN NO: 0386-5185
UNIVERSAL DECIMAL CLASSIFICATION: 616.314-089 616.311/.318
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: A case of **obstructive sleep** spnea occurred immediately after **pharyngeal** flap operation at age 4 years and 1 month was presented. Clinical manifestations included: a) tendency for micrognathia, b) large and long uvullae, c) relatively lesser mobility of the soft palate with **pharyngeal** flap, and b) frequent **apnea** though with thoracic respiratory movements during **sleep**. Clinical symptoms were monitored by roentgen cepharometry, language articulation test, polysomnography, and roentgen video system. These data revealed as follows; 1. Lateral ceparograms showed relatively small size of the mandible and retro**position**ing of the mandible and tongue. The superiorly based **pharyngeal** flap located well below level compared to the palatal plane. There appeared less upward mobility of the soft palate during consonants. 2. Articulation test showed hyponasality during nasal sound production. 3. **Apnea** episodes (over 3 seconds duration) for 30 minutes during **sleep** averaged 59 times. 4. The roentgen video system showed that the upper airway obstruction was

initiated in the approximation of the dorsum of the tongue to the large uvullae and the soft palate, thus airtight relation in the **pharynx** was followed with the production of suction effect by thoracic inspiratory movements. 5. The application of palatal lift **prosthesis** appeared effective for relief of upper airway obstruction maintaining velolingual space and of other general complications. (author abst.)

24/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08963235 PMID: 2184230
Fabrication of a prosthesis to prevent sleep apnea in edentulous patients.

Meyer J B; Knudson R C
Wilford Hall U.S. Air Force Medical Center, San Antonio, Tex.
Journal of **prosthetic** dentistry (UNITED STATES) Apr 1990, 63 (4) p448-51, ISSN 0022-3913 Journal Code: 0376364
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
This article describes clinical and laboratory technique to use in the fabrication of a **prosthesis** to prevent **sleep apnea** in the edentulous patient. The objective of the treatment is to establish a comfortable protrusive and vertical posture of the mandible that prevents or minimizes obstruction of the airway during **sleep**. During fabrication of the **prosthesis** , cephalograms are used to assess spatial changes between the base of the tongue and the posterior **pharyngeal** wall.
Record Date Created: 19900525
Record Date Completed: 19900525

24/7/4 (Item 4 from file: 94)
DIALOG(R)File 94:JICST-EPlus

01904253 JICST ACCESSION NUMBER: 93A0525852 FILE SEGMENT: JICST-E
Long Term Effect of Palatal Lift Prosthesis (PLP) on Improvement of Respiratory Distress in a Case of Obstructive Sleep Apnea following Pharyngeal **Flap Operation.**
TACHIMURA TAKASHI (1); HARA HISANAGA (1); SATO KOICHI (1); WADA TAKESHI (1)
(1) Osaka Univ., Dental School, Hospital
Nippon Kogairetsu Gakkai Zasshi(Journal of Japanese Cleft Palate Association), 1993, VOL.18,NO.2, PAGE.210-219, FIG.7, REF.17
JOURNAL NUMBER: Y0100AAD ISSN NO: 0386-5185
UNIVERSAL DECIMAL CLASSIFICATION: 616.22/.27 616.21-089
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Short Communication
MEDIA TYPE: Printed Publication
ABSTRACT: This report described one case in which **obstructive sleep apnea syndrome**(OSAS) immediately following **pharyngeal** flap operation at 4

years of age had improved substantially through longterm palatal lift **prosthesis** (PLP) treatment by 10 years of age. Clinical evaluation using videoradiography and lateral cephalogram at 5 years of age revealed that the OSAS in the case was caused by the airtight contact of tongue dorsum and immobile soft patate, which was attributed to retro**positioning** mandible, less mobility of soft palate impeded by low shifted flap base, poor growth in vertical dimension of maxillae and adenoidal hypertrophy. PLP was applied to dissolve the airtight contact by maintaining the velolingual space through the elevation of the soft palate. The patient did not shown respiratory distress for the first 4 years until 9 years of age in a condition with PLP, but OSAS had persisted in a condition without PLP. However, pulse oxymetrical assessment at 10 years of age revealed that respiratory function in the case without the PLP became normal because of the decrease in resistance in the upper air way associated with the vertical and anterior growth in maxillae and mandible respectively, and the involution of adenoid. These findings suggest that OSAS caused by **pharyngeal** flap operation at an early age can be well managed with PLP and that assessments including maxillofacial morphology as well as respiratory function should be continued until the age when the maxillofacial structures achieve enough growth and the involution of adenoidal tissue are recognized. (author abst.)

24/7/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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10267450 PMID: 8354787
Managing obstructive sleep apnea .
Knudson R C; Meyer J B
Wilford Hall Medical Center/DSPM, Lackland Air Force Base, Texas 78236-5317.
Journal of the American Dental Association (UNITED STATES) Aug 1993, 124 (8) p75-8, ISSN 0002-8177 Journal Code: 7503060
Publishing Model Print
Document type: Case Reports; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Obstructive sleep apnea , cessation of **breathing** during **sleep**, is potentially life threatening and requires prompt intervention. A **prosthesis** can **reposition** the mandible during **sleep** and minimize or prevent the tongue from collapsing against the **pharynx** . Two case reports discuss the effectiveness of **prosthetic devices**.
Record Date Created: 19930923
Record Date Completed: 19930923

24/7/9 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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11139192 PMID: 8582718
Automatic control of airway pressure for treatment of obstructive sleep apnea .

Behbehani K; Yen F C; Burk J R; Lucas E A; Axe J R
Department of Biomedical Engineering, University of Texas at Arlington 76019, USA.
IEEE transactions on bio-medical engineering (UNITED STATES) Oct 1995, 42 (10) p1007-16, ISSN 0018-9294 Journal Code: 0012737
Contract/Grant No.: 1 R15 HL 46467-02; HL; NHLBI
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Obstructive sleep apnea (OSA) occurs when airflow ceases because of **pharyngeal** wall collapse in **sleep**. Repeated apneic events results in the development of a pathological condition called OSA **syndrome**. We describe the methodology and design of a **prosthetic device**, named automatic positive airway pressure (APAP), for treatment of this **syndrome**. APAP applies a stream of air via a nasal mask at an initial pressure selected by the patient. By sensing specific pressure characteristics of air flow immediately preceding **pharyngeal** wall collapse, the APAP **device** automatically raises the applied pressure to maintain a patent upper airway and thus prevent **apnea** . Conversely, when such conditions are absent, pressure is lowered step wise until a preselected minimum pressure is reached. Performance evaluation of the APAP system in five OSA patients and five normal (asymptomatic for **sleep apnea**) subjects revealed that it effectively treated OSA **syndrome**. It lowered the **apnea** -hypopnea index without disturbing **sleep** and resulted in a lower mean airway pressure compared to the traditional continuous positive airway pressure (CPAP) therapy. The results also show that the pressure needed to prevent OSA varied significantly throughout the night. For OSA **syndrome** patients, this pressure ranged from 3 to 18 cm H2O. The mean airway pressure for these patients had a sample average of 6.80 cm H2O and a standard deviation of 3.17 cm H2O. In normal subjects, the **device** did not raise pressure except in response to **Pharyngeal** Wall Vibration events.

Record Date Created: 19960320
Record Date Completed: 19960320

24/7/11 (Item 11 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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11682606 PMID: 9036522

[Treatment of obstructive sleep apnea syndrome using a mandibular advancement prosthesis: review of the literature]

Le traitement du **syndrome** d'apnees **obstructives** du sommeil par les protheses mandibulaires d'avancee: revue de la litterature.

Lockhart R; Dichamp J; Bertrand J C
Service de stomatologie et prothese maxillofaciale Pr BERTRAND Groupe hospitalier Pitie-Salpetriere, Paris.
Revue de stomatologie et de chirurgie maxillo-faciale (FRANCE) Dec 1996 , 97 (6) p365-73, ISSN 0035-1768 Journal Code: 0201010
Publishing Model Print; Erratum in Rev Stomatol Chir Maxillofac 1997 Jan;98(1) 62-4
Document type: Journal Article; Review; Review, Tutorial ; English Abstract
Languages: FRENCH

Main Citation Owner: NLM
Record type: MEDLINE; Completed

The treatment of OSAS with **prosthetic devices** displacing forward and lowering the mandible in order to increase the size of the **pharyngeal** airway is seldom used at present. Some recent publications attracted our interest and we deemed it of interest to review them. Our work is mostly concerned with objective results as assessed by polysomnography, and also with cephalometric changes caused by the **device**. In spite of equivocal results at polysomnography, which seldom met commonly accepted criteria of successful treatment, indiscutable therapeutic successes have been reported. Therefore, this simple, reversible and cheap **devices** could be advocated in cases of mild or moderate OSAS. However, their role in the therapeutic armamentarium of OSAS as well as their indications and efficacy need to be better assessed. (56 Refs.)

Record Date Created: 19970225
Record Date Completed: 19970225

24/7/15 (Item 15 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12878851 PMID: 10822889

Do oral appliances enlarge the airway in patients with obstructive sleep apnoea? A prospective computerized tomographic study.

Gale D J; Sawyer R H; Woodcock A; Stone P; Thompson R; O'Brien K
Department of Orthodontics, Countess of Chester Hospital, UK.

European journal of orthodontics (ENGLAND) Apr 2000, 22 (2) p159-68, ISSN 0141-5387 Journal Code: 7909010
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

This study evaluated the effect of an anterior mandibular **positioning appliance** (AMPA) on minimum **pharyngeal** cross-sectional area (MPCSA) in 32 conscious supine **obstructive sleep** apnoea (OSA) subjects. The change in MPCSA was measured using low dose computerized tomography, with and without an AMPA in situ. The results showed that the mean presenting respiratory disturbance index (RDI) was 26.6 events/hour, with a body mass index of 28.6 kg/m2 and mean age of 51.5 years. There was a statistically significant increase in MPCSA of 28.34 mm2 on **appliance insertion** (SD = 59.06 mm2; range -145 to +190 mm2; P = 0.011). The mean mandibular **displacement** was 5.73 mm (SD = 2.51 mm) in protrusion and 8.27 mm (SD = 4.51 mm) inferiorly. A poor correlation was found between the size of the mandibular **displacement** and the change in MPCSA (protrusion r = 0.268; inferiorly r = 0.240, P > 0.05). In conclusion, the AMPA significantly increased MPCSA, suggesting that it may be an effective therapy for OSA. There was, however, a wide but unpredictable individual variation of response. As a small number of patients may worsen in their condition with temporary mandibular advancement (TMA), it is essential that all patients treated with TMA should be investigated by polysomnography both before and after treatment.

Record Date Created: 20000627
Record Date Completed: 20000627

24/7/16 (Item 16 from file: 94)
DIALOG(R)File 94:JICST-EPlus

05290592 JICST ACCESSION NUMBER: 02A0875157 FILE SEGMENT: JICST-E
Utility of prosthetic mandibular advancement (PMA) in patients with obstructive sleep apnea . Use of cephalograms.
KONDA TOSHIYUKI (1)
(1) Osakaidai Kokugeka
Osaka Ika Daigaku Zasshi(Journal of Osaka Medical College), 2002, VOL.61,NO.2, PAGE.126-137, FIG.5, TBL.7, REF.39
JOURNAL NUMBER: F0953AAI ISSN NO: 0030-6118 CODEN: OIDZA
UNIVERSAL DECIMAL CLASSIFICATION: 616.2-08
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: A method for treating patients with **obstructive sleep apnea** is to use a dental **appliance** called a **prosthetic** mandibular advancement(PMA) **device** in an attenpt to expand the upper airway. To date, no report details now the PMA **device** changes the upper airway or whether respiratory disturbance during **sleep** is improved. In this study, we observed changes in the upper airway resulting from use of the PMA **device**. We obtained cephalograms for 53 men who had been fitted with a PMA **device**. We measured the space in the upper airway and the **positions** of the dorsum linguae and vallecula **epiglottis** . We also studied the effectiveness of the PMA in 17 of the 53 patients in a **sleep** study. With use of the PMA **appliance**, the space in the upper airway increased significantly, causing the top part of the dorsum linguae to lower and shift forward markedly and the vallecula **epiglottis** to shift forward markedly. Results of the **sleep** study showed that **obstructive sleep apnea** improved significantly. (author abst.)

24/7/17 (Item 17 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14538510 PMID: 12491591
[A clinical study of sleep apnea syndrome]
Murakami Naoko; Hara Hirotaka; Yamashita Hiroshi
Department of Otorhinolaryngology, Yamaguchi University School of Medicine, Yamaguchi.
Nippon Jibiinkoka Gakkai kaiho (Japan) Nov 2002, 105 (11) p1116-20, ISSN 0030-6622 Journal Code: 7505728
Publishing Model Print
Document type: Journal Article ; English Abstract
Languages: JAPANESE
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Between December 1996 and June 2001 at Yamaguchi University Hospital overnight polysomnography (PSG) was conducted on 167 patients with **snoring** and **sleep apnea** . We treated **obstructive sleep apnea syndrome** (OSAS) patients with uvulo-palate- **pharyngoplasty** (UPPP), and/or nasal surgery,

nasal continuous positive airway pressure (nasal-CPAP), and **prosthetic** dental **devices**. We studied the effects of surgery and dental **device** use by follow-up PSG. Nasal-CPAP therapy was done for lower subsequent compliance. We discuss results with reference to the literature.
Record Date Created: 20021220
Record Date Completed: 20030312

24/7/18 (Item 18 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14341897 PMID: 12166562
MRI of the pharynx and treatment efficacy of a mandibular advancement device in obstructive sleep apnoea syndrome.
Sanner B M; Heise M; Knoben B; Machnick M; Laufer U; Kikuth R; Zidek W; Hellmich B
Dept of Medicine 1, Ruhr University Bochum, Marienhospital Herne, Germany. Bernd.Sanner@ruhr.uni-bochum.de
European respiratory journal - official journal of the European Society for Clinical Respiratory Physiology (Denmark) Jul 2002, 20 (1) p143-50 , ISSN 0903-1936 Journal Code: 8803460
Publishing Model Print
Document type: Clinical Trial; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
In **obstructive sleep** apnoea **syndrome** (OSAS), **prosthetic** mandibular advancement **devices** (MAD) seem to be a promising treatment alternative to conventional continuous positive airway pressure therapy. Unfortunately, while they are effective in some patients, they are ineffective in others or may even worsen OSAS. At present, it is not known whether predictors can be defined which allow for estimation of the potential effect of oral **appliances** on the severity of OSAS. Clinical and polysomnographical efficacy of a MAD was evaluated in 15 patients with OSAS. In addition, ultrafast magnetic resonance imaging (MRI) of the **pharynx** was performed in 13 of these patients at rest during transnasal shallow respiration and during performance of the Muller manoeuvre, both with and without the MAD, and the site of closure was determined. The MAD reduced the mean apnoea/hypopnoea index (AHI) from 19.8+/-14.5 to 7.2+/-7.4 x h(-1). Seven subjects (53.8%) had at least a 50% reduction in AHI to a value <10 x h(-1) with the MAD, whereas the MAD was ineffective in six patients. Five of the seven treatment responders had no significant **pharyngeal** obstruction during the manoeuvre with the **device**, while all of them had **pharyngeal** obstruction when not equipped with the **device**. Four of the six patients with treatment failure had a single velo**pharyn**geal obstruction and two a combined obstruction of the velo- and glosso**pharynx** during the Muller manoeuvre while wearing the **device**. The results of this study suggest that airway patency during the Muller manoeuvre while wearing a mandibular advancement **device** may be predictive of the success of **obstructive sleep** apnoea **syndrome** treatment with a mandibular advancement **device**.
Record Date Created: 20020808
Record Date Completed: 20030114

24/7/19 (Item 19 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

14274768 PMID: 12082447
[Sleep apnea syndrome and obesity]
Syndrome d'apnees du sommeil et obesite
Laaban J P
Service de Pneumologie, Hotel-Dieu de Paris, 1, **place** du Parvis-Notre-Dame, 75181 Paris Cedex 04. j-pierre.laaban@htd.ap-hop-paris.fr
Revue de pneumologie clinique (France) Apr 2002, 58 (2) p91-8, ISSN 0761-8417 Journal Code: 8406312
Publishing Model Print
Document type: Journal Article; Review; Review, Tutorial ; English Abstract
Languages: FRENCH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Obesity is a main risk factor for **sleep apnea syndrome** (SAS). The prevalence of SAS is especially high in massive obesity and in visceral obesity. The mechanisms of **obstructive apneas** in obesity are poorly known, but an increase in upper airway collapsibility probably plays an important role. Several cardiorespiratory complications of SAS, especially systemic arterial hypertension, diurnal **alveolar hypoventilation** and pulmonary arterial hypertension, are more frequent and more severe in obese patients. An important weight loss resulting from surgical treatment of obesity is often associated with a dramatic decrease in **apnea** -hypopnea index in patients with massive obesity. In patients with moderate obesity, dietary weight loss is associated with varying degrees of improvement in SAS. **Pharyngoplasty** and anterior mandibular **positioning devices** have a low success rate in patients with massive obesity. Nasal continuous positive airway pressure is often the only effective treatment in obese SAS patients. (51 Refs.)
Record Date Created: 20020625
Record Date Completed: 20030619

red flag

30/7/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

[redacted]

11327295 PMID: 8630156
Use of the endotracheal tube as a pharyngeal airway.
Hauswald M; Ong G; Hun Y B; Tan P S
Department of Emergency Medicine, University of New Mexico School of Medicine, Albuquerque 87131-5246, USA.
American journal of emergency medicine (UNITED STATES) Jan 1996, 14 (1) p48-9, ISSN 0735-6757 Journal Code: 8309942
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
An animal study was conducted to determine whether an endotracheal tube **placed** above the vocal cords in the **pharynx** can be used for ventilation. Four dogs undergoing general anesthesia were ventilated through an

endotracheal tube **placed** in the **oropharynx** with the remainder of the airway occluded. Ventilation was performed for 3 of every 5 minutes during a total period of 25 minutes. Arterial PCO2 was compared in sequential samples alternating **apnea** and **pharyngeal** ventilation. Ventilation via the **pharyngeal** tube significantly reduced the arterial PCO2 from 48.8 mm Hg (SD 16) during **apnea** to 30.1 mm Hg (SD 10.9). Repeated measures ANOVAF = 8.2, P < .001. All PCO2 levels during ventilation were in or below the normal range of 34 to 46. Provided that the mouth and nose can be sealed, an endotracheal tube **placed** in the **pharynx** above the cords allows for adequate ventilation.
Record Date Created: 19960703
Record Date Completed: 19960703

38/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06822619 PMID: 6665392
Cephalometric analyses and flow-volume loops in obstructive sleep apnea patients.
Riley R; Guilleminault C; Herran J; Powell N
Sleep (UNITED STATES) 1983, 6 (4) p303-11, ISSN 0161-8105
Journal Code: 7809084
Contract/Grant No.: AGO 2504; AG; NIA
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Fifteen patients with **obstructive sleep apnea syndrome** (OSAS) and 10 controls were studied. Polygraphic monitoring during **sleep** confirmed the presence or absence of OSAS. Ten OSAS patients and five controls had cephalometric analysis and 12 OSAS patients and five controls had a flow-volume loop study during wakefulness. Seven OSAS patients were submitted to both analyses. Flow-volume loops were unable to detect extrathoracic airway obstruction in six out of 12 OSAS patients. One control was found with positive results. Six out of seven subjects with positive flow-volume loops were overweight (greater than or equal to 30% ideal weight). Cephalograms were very useful in demonstrating mandibular deficiencies in OSAS patients. The length of the soft palate and the **position** of the **hyoid** bone, together with the measurement of the posterior airway space, are criteria of great interest in OSAS patients. Cephalometric analysis is recommended in all OSAS patients scheduled for surgical procedure. None of these tests, however, whether alone or in combination, is capable of identifying all cases of OSAS.
Record Date Created: 19840228
Record Date Completed: 19840228

38/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07074102 PMID: 6488926
Obstructive sleep apnea and abnormal cephalometric measurements.

Implications for treatment.
Guilleminault C; Riley R; Powell N
Chest (UNITED STATES) Nov 1984, 86 (5) p793-4, ISSN 0012-3692 Journal Code: 0231335
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The **position** of the **hyoid** bone, which anchors much of the tongue musculature, is often abnormally low in patients with **obstructive sleep apnea syndrome** (OSAS). Cephalometric measurements, frequently used to measure SNA and SNB angles, can also provide information on the posterior airway space (PAS), the mandibular plane, and the **hyoid** bone. This information is useful in determining the appropriate surgical treatment for OSAS patients.
Record Date Created: 19841205
Record Date Completed: 19841205

38/7/18 (Item 18 from file: 144)
DIALOG(R)File 144:Pascal

13882258 PASCAL No.: 99-0061243
Early decannulation with bilateral mandibular distraction for tracheostomy-dependent patients. Discussion
WILLIAMS J K; MAULL D; GRAYSON B H; LONGAKER M T; MCCARTHY J G; COHEN S R comment
Atlanta Plastic Surgery, P. C. 975 Johnson Ferry Rd. Suite 500, Atlanta, Ga. 30342, United States; Variety Center of Craniofacial Rehabilitation, the Institute of Reconstructive Plastic Surgery, New York University Hospital, United States
Journal: Plastic and reconstructive surgery : (1963), 1999, 103 (1) 48-59
ISSN: 0032-1052 Availability: INIST-11075; 354000073323730070
No. of Refs.: 33 ref.
Document Type: P (Serial) ; A (Analytic)
Country of Publication: United States
Language: English
Obstructive sleep apnea in the neonatal period may originate from a hypoplastic mandibular framework causing retro**position** of the base of the tongue and an inadequate hypo**pharyng**eal space. A tracheotomy in childhood is an effective treatment for **obstructive sleep apnea**, but it is associated with increased morbidity, management problems, and difficulties in social interaction. Tracheostomy-dependent pediatric patients who underwent mandibular distraction were reviewed to determine the effectiveness of this technique in achieving decannulation. A clinical review was completed to determine the status of the tracheostomy after external, unidirectional distraction in tracheostomy-dependent patients. Expansion of the mandibular framework was analyzed using traditional bony landmarks on predistraction and postdistraction lateral cephalograms. The area of the lower face was analyzed, and changes in the **position** of the **hyoid** bone were determined. Four patients with tracheostomies underwent an average of 21.3 mm and 20.8 mm of distraction on the left and right hemimandibles, respectively. The average age at the time of distraction was 2.7 years

(range, 2.2 to 3.2 years). All patients underwent successful decannulation at an average of 3.8 months (range, 1.5 to 5.5 months) after completion of distraction. The area of the lower face increased 26.9 percent (range, 12.2 to 53.5 percent) after distraction, and the **hyoid** bone advanced an average of 14.5 mm (range, 8 to 25 mm). Bilateral mandibular distraction is an effective method of expanding the mandibular framework and concomitantly advancing the base of the tongue. The technique provides a tool for early intervention and decannulation in pediatric patients with indwelling tracheostomies secondary to mandibular deficiencies.

38/7/19 (Item 19 from file: 155) [Duplicate of 38/7/18, p. 28]
DIALOG(R)File 155:MEDLINE(R)

13264153 PMID: 9915163

Early decannulation with bilateral mandibular distraction for tracheostomy-dependent patients.

Williams J K; Maull D; Grayson B H; Longaker M T; McCarthy J G

Variety Center of Craniofacial Rehabilitation, the Institute of Reconstructive Plastic Surgery, New York University Hospital, NY 10016, USA.

Plastic and reconstructive surgery (UNITED STATES) Jan 1999, 103 (1) p48-57; discussion 58-9, ISSN 0032-1052 Journal Code: 1306050

Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Obstructive sleep apnea in the neonatal period may originate from a hypoplastic mandibular framework causing retro**position** of the base of the tongue and an inadequate hypo**pharyn**geal space. A tracheotomy in childhood is an effective treatment for **obstructive sleep apnea**, but it is associated with increased morbidity, management problems, and difficulties in social interaction. Tracheostomy-dependent pediatric patients who underwent mandibular distraction were reviewed to determine the effectiveness of this technique in achieving decannulation. A clinical review was completed to determine the status of the tracheostomy after external, unidirectional distraction in tracheostomy-dependent patients. Expansion of the mandibular framework was analyzed using traditional bony landmarks on predistraction and postdistraction lateral cephalograms. The area of the lower face was analyzed, and changes in the **position** of the **hyoid** bone were determined. Four patients with tracheostomies underwent an average of 21.3 mm and 20.8 mm of distraction on the left and right hemimandibles, respectively. The average age at the time of distraction was 2.7 years (range, 2.2 to 3.2 years). All patients underwent successful decannulation at an average of 3.8 months (range, 1.5 to 5.5 months) after completion of distraction. The area of the lower face increased 26.9 percent (range, 12.2 to 53.5 percent) after distraction, and the **hyoid** bone advanced an average of 14.5 mm (range, 8 to 25 mm). Bilateral mandibular distraction is an effective method of expanding the mandibular framework and concomitantly advancing the base of the tongue. The technique provides a tool for early intervention and decannulation in pediatric patients with indwelling tracheostomies secondary to mandibular deficiencies.

Record Date Created: 19990203
Record Date Completed: 19990203

38/7/23 (Item 23 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13245274 PMID: 12476499
The effect of long-term mandibular advancement on the hyoid bone and pharynx as it relates to the treatment of obstructive sleep apnoea.
Robertson C J
Department of Oral Sciences and Orthodontics, School of Dentistry, University of Otago, Dunedin, New Zealand. c.robertson@clear.net.nz
Australian orthodontic journal (Australia) Nov 2000, 16 (3) p157-66, ISSN 0587-3908 Journal Code: 1260462
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
A cephalometric analysis was carried out to determine the effects of long-term mandibular advancement on the hard and soft tissues of the upper airway and, in particular, the relationship of the **hyoid** bone to both the cranium and the cervical spine, following mandibular advancement. One hundred consecutively-treated patients (87 males and 13 females; mean age: 49.26 years; SD: 8.56; range: 33-74 years) diagnosed with **obstructive sleep** apnoea and/or habitual **snoring** were reviewed at 6-month intervals over 6 to 30 months of treatment with a mandibular advancement splint. Significant changes to both the **oropharynx** and velo**pharynx** were observed. At 12 months, the posterior airway space had increased from 10.71 mm to 11.99 mm (mean difference: 1.28 mm). At 6 months, significant changes had occurred in the soft palate length and thickness: a mean reduction in length of 1.46 mm ($p < 0.0001$) and in thickness of 0.57 mm. No changes were observed in the hypo**pharynx**: the **position** of the **hyoid** bone remained unchanged in relation to both the cranium and cervical spine in all linear and angular measurements. The author concludes that mandibular advancement with oral **appliances** should be considered as a treatment for life.
Record Date Created: 20021212
Record Date Completed: 20030103

38/7/24 (Item 24 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13223271 PMID: 11702582
[Genioglossal advancement in the surgical treatment of obstructive sleep apnea syndrome in adults]
Genioglossus advancement v chirurgicke lecbe obstrukcniho spankoveho apnoickeho syndromu (OSAS) dospelych.
Foltan R; Sonka K
II. stomatologicka klinika, 1. lekarske fakulty Univerzity Karlovy, Vseobecne fakultni nemocnice, U nemocnice 2, 120 00 Praha 2, Czech Republic.
Sbornik lekarsky (Czech Republic) 2000, 101 (4) p393-8, ISSN

0036-5327 Journal Code: 0025770
Publishing Model Print
Document type: Case Reports; Journal Article ; English Abstract
Languages: CZECH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

A 68-year-old female referred for excessive daytime **sleepiness**, strong morning headaches, **snoring** and suspected chronic fatigue **syndrome**. The polyMESAM examination was performed with following results: Respiratory Disturbances Index--RDI (average number of apnoeas and hypopnoeas in one hour of registration) 26, Oxygen Desaturation Index--ODI (average number of oxygen haemoglobin saturation drops in one hour) 51, basal oxygen haemoglobin saturation 90% and average oxygen haemoglobin saturation minimas 82%. Her condition was rated as grave OSAS. CPAP therapy was, however, impeded by anxiety state caused by claustrophobia. Analysis of lateral cephalogram proved significant constriction of the retrolingual posterior airway space to 6 mm (the bottom standard limit for women is 12 mm), with a relatively good **position** of the **hyoid** bone. The genioglossus advancement surgery was therefore performed on the patient as the only causational therapy. Then the patient referred improvement of **sleepiness**, **snoring** , fatigue and morning headache. PolyMESAM recorded two months after the surgery showed a strong improvement of OSAS: RDI 11, ODI 14, basal oxygen haemoglobin saturation 93% and average oxygen haemoglobin saturation minimas 89%.

Record Date Created: 20011112
Record Date Completed: 20020116

38/7/28 (Item 28 from file: 94)
DIALOG(R)File 94:JICST-EPlus

04858499 JICST ACCESSION NUMBER: 01A0304693 FILE SEGMENT: JICST-E
A dental approach to sleep apnea syndrome.
HIGURASHI NAOKI (1)
(1) Shuokai Kosumosushikamabashikurinikku
Nihon Koku Kenko Igaku Kaishi(Journal of the Japan Academy of Dental Health Science), 2001, VOL.21,NO.3, PAGE.312-315, FIG.3, TBL.1, REF.9
JOURNAL NUMBER: S0047BBH ISSN NO: 0289-2030
UNIVERSAL DECIMAL CLASSIFICATION: 616.31-071 616.22/.27
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: A **sleep apnea syndrome**(SAS) is one of the most common diseases. The respiration of SAS patients stops in **sleeping**, and it causes many diseases. In the USA, the **position** of dentists on SAS has been established, and dentists have cooperated with medical doctors. In Japan, however, SAS is almost unknown among dentists. So, I report abot a dental approach to SAS, and I hope the understanding of SAS will be deepened among dentists. One of dentists's role on SAS is to diagnose craniomandibular abnormality of SAS patients with lateral cephalograms. SAS patients have(1) dolico facial pattern(long face), (2) low **positioned** **hyoid** bone, (3) normal **position**ed maxilla and retruded mandible, (4) long soft palate and(5) narrow airway, and sometimes have tonsils and/or adenoids. The other dentist's role on SAS is to treat

with oral **appliances**(OA). There are two types of OA; one is the **sleep** splints type and the other is the tongue retaining **device**(TRD) type. A purpose of OA is to advance the mandible and the tongue, and to expand the airway of SAS patients. However the mechanism, the indication, and the quantities of advancement are not clear. So we will continue studies on OA about these points as we have done. (author abst.)

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File   9:Business & Industry(R) Jul/1994-2005/Jul 22
         (c) 2005  The Gale Group
File 149:TGG Health&Wellness DB(SM) 1976-2005/Jul W2
         (c) 2005 The Gale Group
File 148:Gale Group Trade & Industry DB 1976-2005/Jul 25
         (c)2005 The Gale Group
File  16:Gale Group PROMT(R) 1990-2005/Jul 22
         (c) 2005 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 621:Gale Group New Prod.Annou.(R) 1985-2005/Jul 25
         (c) 2005 The Gale Group
File 649:Gale Group Newswire ASAP(TM) 2005/Jul 13
         (c) 2005 The Gale Group
File 635:Business Dateline(R) 1985-2005/Jul 23
         (c) 2005 ProQuest Info&Learning
File 636:Gale Group Newsletter DB(TM) 1987-2005/Jul 22
         (c) 2005 The Gale Group
File 441:ESPICOM Pharm&Med DEVICE NEWS 2005/Jun W3
         (c) 2005 ESPICOM Bus.Intell.
File  98:General Sci Abs/Full-Text 1984-2004/Dec
         (c) 2005 The HW Wilson Co.
File 369:New Scientist 1994-2005/May W3
         (c) 2005 Reed Business Information Ltd.
File 370:Science 1996-1999/Jul W3
         (c) 1999 AAAS
Set     Items   Description
S1       2936   OROPHARYN?
S2       8680   PHARYN? OR EPIGLOTTI? OR GLOTTI? OR HYOID
S3      34130   PROSTHES?S OR PROSTHETIC? OR ORTHOS?S OR ORTHOTIC?
S4    9660861   INSERT? OR POSITION? OR PLACE? ? OR PLACING OR ARRANG?
S5     203901   IMPLANT? OR GRAFT???
S6    3167685   APPLIANCE? ? OR DEVICE? ?
S7    5831197   NITINOL OR WIRE OR SPRING OR SUPERELASTIC OR SUPER()ELASTIC
S8      12036   APNEA OR SNORING
S9       1881   (OBSTRUCTIVE OR SLEEP()DISORDERED)()BREATHING OR CENTRAL()-
                ALVEOLAR()HYPOVENTILATION
S10       641   HYPERSOMNIA OR HYPERSOMNOLENCE OR (PICKWICK? OR ONDINE)()S-
                YNDROME
S11     36674   S4:S5(2W)S6:S7
S12         1   S1(10N)(S3 OR S11)
S13         8   S2(10N)(S3 OR S11)
S14         8   S13 NOT S12
S15         6   RD (unique items)
S16         6   Sort S15/ALL/PD,A
S17       142   S4:S5(3N)S1:S2
S18       139   S4:S5(5W)S1:S2
S19       139   S18 NOT S12:S13
S20        29   S19 AND (S8/TI,DE OR S9/TI,DE OR S10/TI,DE)
S21        27   RD (unique items)
S22         3   S21/2003:2005
S23        24   S21 NOT S22
S24        24   Sort S23/ALL/PD,A
S25         0   S1(3N)S7(S)S8:S10
S26        38   S4:S5(5W)S1
S27        29   S26 NOT (S20 OR S12 OR S13)
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S28 23 RD (unique items)
S29 3 S28/2003:2005
S30 20 S28 NOT S29
S31 20 Sort S30/ALL/PD,A

12/3,K/1 (Item 1 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01301404 SUPPLIER NUMBER: 10948283 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Treatment of snoring and obstructive sleep apnea with a dental orthosis.
Schmidt-Nowara, Wolfgang W.; Meade, Thomas E.; Hays, Marvin B.
Chest, v99, n6, p1378(8)
June,
1991
PUBLICATION FORMAT: Magazine/Journal ISSN: 0012-3692 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 3767 LINE COUNT: 00403

... may be affected, and this may modify collapsibility. [14] Finally, the oral airway in the **orthosis** may alter pressures in the **oropharynx** so as to reduce narrowing and collapse during inspiration. More detailed imaging and studies of...

16/3,K/2 (Item 2 from file: 98)
DIALOG(R)File 98:General Sci Abs/Full-Text

03023945 H.W. WILSON RECORD NUMBER: BGSI95023945
Treating obstructive sleep apnea: can an intraoral prosthesis help?.
Osseiran, Hasan S
Journal of the American Dental Association (J Am Dent Assoc) v. 126 (Apr. '95) p. 461-6
SPECIAL FEATURES: bibl il ISSN: 0002-8177
LANGUAGE: English
COUNTRY OF PUBLICATION: United States

...ABSTRACT: It is believed that this condition occurs when the tongue falls back against the posterior **pharyngeal** wall during **sleep** and obstructs the airflow. The intraoral **prosthesis** was tested on 5 men aged between 27 and 53 years, one of whom later...

16/3,K/3 (Item 3 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01655636 SUPPLIER NUMBER: 18898325 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Management of malignant esophagotracheal fistulas with airway stenting and double stenting.
Freitag, Lutz; Tekolf, Edith; Steveling, Heinz; Donovan, Terrence J.; Stamatis, Georgios
Chest, v110, n5, p1155(6)
Nov,
1996

PUBLICATION FORMAT: Magazine/Journal ISSN: 0012-3692 LANGUAGE: English
RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 3178 LINE COUNT: 00277

... cases. J Surg Oncol 1977; 9:547-50 (26) Spinelli P, Cerrai FG, Meroni E. **Pharyngo** -esophageal **prostheses** in malignancies of the cervical esophagus. Endoscopy 1991; 23:213-14 (27) Orlowski TM. Palliative ...

16/3,K/4 (Item 4 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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02005905 SUPPLIER NUMBER: 76609754 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The difficult airway: Tools and techniques for acute management.
BLANDA, MICHELLE
The Journal of Critical Illness, 15, 7, 358
July,
2000
PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 1040-0257
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Academic; Professional
WORD COUNT: 4340 LINE COUNT: 00366

... as in a burn patient with **glottic** edema, initially passing a smaller guide through the **glottis** may facilitate tube **insertion** . **Devices** used successfully for this purpose include suction catheters and tracheal tube exchangers that are **placed**...

24/3,K/10 (Item 10 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01621327 SUPPLIER NUMBER: 18315350 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Treatment of obstructive sleep apnea : a review.
Hudgel, David W.
Chest, v109, n5, p1346(13)
May,
1996
PUBLICATION FORMAT: Magazine/Journal ISSN: 0012-3692 LANGUAGE: English
RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 10622 LINE COUNT: 00888

Treatment of obstructive sleep apnea : a review.
... predict the success of **pharyn**geal surgery.(56),(57),(58) Palate length, posterior airway space, mandibular **position** and plane, and **hyoid** bone **position** are variables identified to be abnormal in patients with OSA.(56),(57),(58...

DESCRIPTORS: **Sleep apnea syndromes**...

24/3,K/16 (Item 16 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01813489 SUPPLIER NUMBER: 53545104 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Treatment Success With a Mandibular Advancement Device Is Related to Supine-Dependent Sleep Apnea (*).
Marklund, Marie; Persson, Maurits; Franklin, Karl A.
Chest, 114, 6, 1630(1)
Dec,
1998
PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0012-3692
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 3241 LINE COUNT: 00312

Treatment Success With a Mandibular Advancement Device Is Related to Supine-Dependent Sleep Apnea (*).
... least 5 mm between the incisors, which intended to move the tongue in an anterior **position** with a subsequent increase in **pharyngeal** airway space (Fig 1). The **device** was made of SR-Ivocap or SR-Ivocap Elastomer...

DESCRIPTORS: **Sleep apnea syndromes**...

24/3,K/18 (Item 18 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01905028 SUPPLIER NUMBER: 62084093 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Dose-Dependent Effects of Mandibular Advancement on Pharyngeal Mechanics and Nocturnal Oxygenation in Patients With Sleep - Disordered **Breathing (*).**
Kato, Jiro; Isono, Shiroh; Tanaka, Atsuko; Watanabe, Toshihide; Araki, Daisuke; Tanzawa, Hideki; Nishino, Takashi
Chest, 117, 4, 1065
April,
2000
PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0012-3692
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 4931 LINE COUNT: 00452

Dose-Dependent Effects of Mandibular Advancement on Pharyngeal Mechanics and Nocturnal Oxygenation in Patients With Sleep - Disordered **Breathing (*).**
... depends on the mandibular **position**.
(CHEST 2000; 117:1065-1072)
Key words: closing pressure; mandibular **position** ; **obstructive sleep apnea**; oral **appliance**; **pharynx**
Abbreviations: Amax = maximum area; BMI = body mass index; (CT.sub.90) = percent of time spent...

24/3,K/20 (Item 20 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01991381 SUPPLIER NUMBER: 74524177 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Obstructive Sleep Apnea Syndrome: When to Suspect, How to Help.

WEAVER, EDWARD M.
Consultant, 41, 3, 397
March,
2001
PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0010-7069
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 4292 LINE COUNT: 00397

Obstructive Sleep Apnea Syndrome: When to Suspect, How to Help.
... reduction (submucous resection, partial resection, intramural cautery, radiofrequency tissue reduction)
Septoplasty
Nasal valve suspensions (spreader **grafts** , suspension sutures)
Oropharynx
Palate surgery (uvulopalato**pharyn**goplasty, uvulopalatal flap (see Figure 2), laser-assisted uvulopalatoplasty, palatal advancement, and radiofrequency...

DESCRIPTORS: **Sleep apnea syndromes**...

24/3,K/24 (Item 24 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
(c) 2005 The Gale Group. All rts. reserv.

02124381 SUPPLIER NUMBER: 95176853 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Sleep disorders: obstructive sleep apnea syndrome, restless legs syndrome, and insomnia in geriatric patients. (The Brain).
Barthlen, Gabriele M.
Geriatrics, 57, 11, 34
Nov,
2002
PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0016-867X
LANGUAGE: English RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 3298 LINE COUNT: 00323

Sleep disorders: obstructive sleep apnea syndrome, restless legs syndrome, and insomnia in geriatric patients. (The Brain).
... is a custom-fitted dental mandibular advancement **device**, which locks the jaw in a protruded **position** , thus opening up the **oropharyngeal** space.
In patients who are unable to tolerate n-CPAP, an ear/nose/throat consult...

31/3,K/5 (Item 5 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
(c) 2005 The Gale Group. All rts. reserv.

01462799 SUPPLIER NUMBER: 16495570
Inserting an oropharyngeal airway properly.
McConnell, Edwina A.
Nursing, v24, n12, p20(1)
Dec,
1994

PUBLICATION FORMAT: Magazine/Journal ISSN: 0360-4039 LANGUAGE: English
RECORD TYPE: Abstract TARGET AUDIENCE: Professional

Inserting an oropharyngeal airway properly.

ABSTRACT: Medical personnel should exercise patience in **inserting** an **oropharyngeal** airway to patients. They should choose the correct size of the airway and make sure...

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PubMed Central

1: Curr Opin Dent. 1991 Apr;1(2):155-9. Related Articles, Links

Maxillofacial prosthetics.

Grisius RJ.

Geisinger Medical Center, Danville, Pennsylvania.

Investigations are continuing in methods to preserve the dentition and to improve the quality of tissues for the patient receiving radiation to the head and neck. Increased knowledge related to obstructive sleep apnea presents the prosthodontist with an opportunity to provide support during the treatment of these patients. Advances in implant prosthodontics have increased our capability to rehabilitate the patient with intraoral or facial defects. Advances have been made in the use of light-cured materials as well as in the utilization of microwave energy to fabricate prostheses. Unfortunately, the ideal material to be used as a soft liner or for maxillofacial restoration continues to elude the profession.

Publication Types:
- Review
- Review, Tutorial

PMID: 1777660 [PubMed - indexed for MEDLINE]

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File 350:Derwent WPIX 1963-2005/UD,UM &UP=200546
         (c) 2005  Thomson Derwent
File 347:JAPIO Nov 1976-2005/Feb(Updated 050606)
         (c) 2005 JPO & JAPIO
Set     Items   Description
S1        291   OROPHARYN?
S2       2947   PHARYN? OR EPIGLOTTI? OR GLOTTI? OR HYOID
S3      22317   PROSTHES?S OR PROSTHETIC? OR ORTHOS?S OR ORTHOTIC?
S4    5896532   INSERT? OR POSITION? OR PLACE? ? OR PLACING OR ARRANG?
S5     202523   IMPLANT? OR GRAFT???
S6    5131054   APPLIANCE? ? OR DEVICE? ?
S7    1228606   NITINOL OR WIRE OR SPRING OR SUPERELASTIC OR SUPER()ELASTIC
S8       2039   APNEA OR SNORING
S9         69   (OBSTRUCTIVE OR SLEEP()DISORDERED)()BREATHING OR CENTRAL()-
                  ALVEOLAR()HYPOVENTILATION
S10       127   HYPERSOMNIA OR HYPERSOMNOLENCE OR (PICKWICK? OR ONDINE)()S-
                  YNDROME
S11    607551   IC=(A61K? OR A61M-016? OR A61F-005? OR A61B-019?)
S12    138952   IC=(A61K-000? OR A61K-007?)
S13    157201   S4:S5(3W)S6:S7
S14         4   S1(S)(S3 OR S13)
S15        44   S2(S)(S3 OR S13) NOT S14
S16         2   S8:S10 AND S15
S17        22   (S15 AND S11:S12) NOT S16
S18         0   S1 AND S17
S19        42   S15/AB
S20        22   S17 AND S19
S21        57   S1(S)S4
S22        29   S1(S)(S5 OR S7)
S23        30   S1(S)S6
S24        93   S21:S23 NOT (S14 OR S16 OR S20)
S25        13   S24 AND S8:S10
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Foreign and international patents

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 14/34/3     (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005  Thomson Derwent. All rts. reserv.

014275940    **Image available**
WPI Acc No: 2002-096642/200213
  Treatment of nasal-oropharyngeal obstruction in patient, involves using
  collapsible nasal-oropharyngeal tube
Patent Assignee: PHARMASYS INT LLC (PHAR-N)
Inventor: ZAMMIT G
Number of Countries: 001  Number of Patents: 001
Patent Family:
Patent No     Kind   Date     Applicat No    Kind   Date     Week
US 6328753     B1  20011211  US 99379606     A   19990824  200213  B
                             US 2000662918   A   20000915

Priority Applications (No Type Date): US 99379606 A 19990824; US 2000662918
  A 20000915
Patent Details:
Patent No  Kind Lan Pg   Main IPC     Filing Notes
US 6328753    B1     9 A61M-029/00   Div ex application US 99379606
                                      Div ex patent US 6183493
```

* red flag

Abstract (Basic): US 6328753 B1

NOVELTY - Nasal-**oropharyn**geal obstruction in patient is treated by holding a collapsible nasal-**oropharyn**geal tube in a collapsed state and **insert**ing the tube into patient's nasal passage via a nostril, so that the tube distal end is closer to the patient's **oropharyn**x than the tube proximal end. The collapsible tube is expanded so that the distal end is flared and upper airway patency is maintained.

USE - For treating nasal-**oropharyn**geal obstructions, **sleep apnea** and related **breathing** disorders.

ADVANTAGE - The use of collapsible nasal-**oropharyn**geal tube minimizes trauma to the nasal passage, allows self-**insert**ion by the patient and maintains nasal-**oropharyn**geal airway patency.

DESCRIPTION OF DRAWING(S) - The figure is a side view of the collapsed nasal-**oropharyn**geal tube.

Tube proximal end (2)
Tube distal end (3)
Retaining mechanism (6)
Release fiber (7)
pp; 9 DwgNo 4/12

Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Method: The nasal-**oropharyn**geal tube is held in a collapsed state using a retaining mechanism (6). It is expanded by pulling a release fiber (7), which is connected to the release mechanism. A continuous positive-airway-pressure compressor is connected to the tube proximal end using a regulating valve. The method may include applying an anesthetic lubricant to the nasal passage and respectively locating the tube proximal end (2) near the nostril opening and the tube distal end (3) near the **oropharyn**x. The tube may be mounted on an **implanting device** and **insert**ed into the patient's nasal passage while mounted on the **device**, and the **implanting device** is removed from the patient's nasal passage after the tube is expanded.

POLYMERS - Preferred Material: The nasal-**oropharyn**geal tube is made of hypoallergenic material, preferably polyvinyl chloride, polyurethane, polyethylene, or polypropylene. It may comprise fenestrations

Derwent Class: A96; P34
International Patent Class (Main): A61M-029/00

16/34/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.

013439164 **Image available**
WPI Acc No: 2000-611107/200058
Intra-oral appliance for the prevention of snoring
Patent Assignee: ORTHO-TAIN INC (ORTH-N); BERGERSEN E O (BERG-I)
Inventor: BERGERSEN E O
Number of Countries: 089 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6129084	A	20001010	US 98176778	A	19981022	200058	B
WO 200130260	A1	20010503	WO 99US25007	A	19991025	200126	N
AU 200012303	A	20010508	WO 99US25007	A	19991025	200149	N
			AU 200012303	A	19991025		

Priority Applications (No Type Date): US 98176778 A 19981022; WO 99US25007 A 19991025; AU 200012303 A 19991025
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
US 6129084 A 8 A61F-005/56
WO 200130260 A1 E A61C-005/14
Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
AU 200012303 A A61C-005/14 Based on patent WO 200130260

Abstract (Basic): US 6129084 A
NOVELTY - An intra-oral **appliance** is disclosed for repositioning the user's mandible anterior to the user's maxillary teeth thus opening the user's oral and **pharyngeal** passageway and preventing **snoring** and **sleep apnea** . The **appliance** is two U-shaped plates joined to form a hinge. The upper plate has labial-buccal wall but no lingual wall, which allows anterior **positioning** of the tongue. The lower plate has both a labial-buccal wall and a lingual wall. The walls are pliable to reduce pressure on the user's teeth and vary in height and thickness. Lingual tabs are employed to help **position** the **appliance** . A method for using the intra-oral **appliance** is also disclosed.
USE - Intra-oral **appliance** for the prevention of **snoring** .
DESCRIPTION OF DRAWING(S) - A rear view of the preferred embodiment in an open **position**.
upper labial-buccal wall (16)
lingual edge (17)
lower labial-buccal wall (26)
first hinge portion (32)
second hinge portion. (33)
pp; 8 DwgNo 3/8
Derwent Class: P32
International Patent Class (Main): A61C-005/14; A61F-005/56

20/26,TI/20 (Item 20 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.
011042977
WPI Acc No: 1997-020901/199702
Indwelling one-way valve prosthesis for hands-free tracheoesophageal speech - has supporting flanges adapted to contact anterior mucosa of trachea around stoma to achieve airtight seal to support one-way valve in **place**

20/7/15 (Item 15 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.

012965039
WPI Acc No: 2000-136890/200012
New three dimensional prosthesis in shape of body part useful for

reconstruction of human or animal body parts including nose, nasal septum, pharynx and joints

Patent Assignee: FIDIA ADVANCED BIOPOLYMERS SRL (FIDI-N)
Inventor: CALLEGARO L; PASTORELLO A; RADICE M
Number of Countries: 087 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9965534	A1	19991223	WO 99EP4167	A	19990616	200012 B
AU 9946115	A	20000105	AU 9946115	A	19990616	200024
EP 1087797	A1	20010404	EP 99929241	A	19990616	200120
			WO 99EP4167	A	19990616	
IT 1300270	B	20000503	IT 98PD149	A	19980617	200206
JP 2002518101	W	20020625	WO 99EP4167	A	19990616	200243
			JP 2000554411	A	19990616	
AU 761325	B	20030605	AU 9946115	A	19990616	200341
US 6642213	B1	20031104	WO 99EP4167	A	19990616	200374
			US 2000719200	A	20001208	

Priority Applications (No Type Date): IT 98PD149 A 19980617
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9965534	A1	E	24	A61L-015/28	
Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
AU 9946115	A			A61L-015/28	Based on patent WO 9965534
EP 1087797	A1	E		A61L-015/28	Based on patent WO 9965534
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE					
IT 1300270	B			A61F-002/00	
JP 2002518101	W		29	A61L-027/00	Based on patent WO 9965534
AU 761325	B			A61L-015/28	Previous Publ. patent AU 9946115 Based on patent WO 9965534
US 6642213	B1			A61K-031/715	Based on patent WO 9965534

Abstract (Basic): WO 9965534 A1

NOVELTY - A three dimensional (3D) **prosthesis** (I) in a body part shape comprises at least one 3D matrix with an essentially fibrous or porous structure, containing at least one hyaluronic acid derivative. The **prosthesis** contains at least two of the 3D matrixes, one incorporates and/or is adhered to the other matrices and optionally incorporates and/or adheres to a bidimensional perforated matrix.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a process for the preparation of a 3D **prosthesis** where the matrix is a 3D matrix with an essentially fibrous structure and incorporates a porous 3D matrix and comprises:

(a) lining a mold with a layer of nonwoven tissue comprising a hyaluronic acid derivative;

(b) impregnating the non woven tissue in the mold with an aqueous solution of a quaternary ammonium salt of hyaluronic acid or a hyaluronic acid derivative;

(c) freeze-drying the content of the mold therefore obtaining a **prostheses** having a matrix A1 incorporating the matrix B consisting of

the ammonium salts;
(d) optionally converting the ammonium salt contained in the **prostheses** coming from step (c) into a hyaluronic acid; and
(e) freeze-drying the product from (c); and
(2) a process for preparing (I) where the matrix is an essentially porous 3D matrix or is the product of step (c) or (d) of (1) and is adhered to an essentially fibrous 3D matrix comprising:
(a) applying a thin layer of a solution of a hyaluronic acid derivative in a suitable aqueous or organic solvent;
(b) applying to the freeze-dried product from (a) a non-woven tissue comprising a hyaluronic acid derivative; and
(c) freeze-drying the product of (b).
USE - The three dimensional **prosthesis** (I) is useful for reconstruction of human or animal body parts e.g. nose, nasal septum, **pharynx** , larynx, joints, bone structures, eye socket, cardiac valves, blood vessels, nipple, navel, internal organs and their parts, the secondary sexual organs or especially auricula, knuckles or temporomandibular joint. (I) is useful in general, internal, otorhinolarynigological, plastic, aesthetic, oncological, orthopaedic, cardiovascular, gynecological and abdominal surgery and neurosurgery (all claimed). (I) is useful for acting as scaffolds for cell cultures. (I) is useful for the reconstruction of human or animal parts which have been damaged or are missing following trauma or as a result of congenital defects.
ADVANTAGE - The three dimensional **prosthesis** (I) is made easily into any form, however complex and according to the chemical structure of the hyaluronic acid derivative used and according to the degree of esterification have the advantage of having tensile strength and degradation times that can be adjusted according to the requirement of the area to be reconstructed.
pp; 24 DwgNo 0/0
Derwent Class: A11; A14; A28; A96; B07; D16; D22; P32; P34
International Patent Class (Main): A61F-002/00; **A61K-031/715** ; A61L-015/28 ; A61L-027/00
International Patent Class (Additional): A61L-015/00; C08B-037/00; C12N-005/06

20/7/22 (Item 22 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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003255394
WPI Acc No: 1982-A9506E/198204
Pharyngeal -oesophageal segment pressure prosthesis - has U-shaped rigid support band with flexible strap secured between ends and pressure pad secured to centre
Patent Assignee: UNIV OF TEXAS (UYTE-N)
Inventor: KELLY D H
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 4308861	A	19820105				198204	B

Priority Applications (No Type Date): US 80134448 A 19800327
Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
US 4308861 A 6

Abstract (Basic): US 4308861 A

The **pharyngeal** -oesophageal segment pressure **prosthesis** is for providing pressure to a weakened **pharyngeal** -oesophageal segment area of the neck of a laryngectomised person. The **prosthesis** comprises a rigid support band having a U-shaped configuration, and a pad assembly having a curvilinear exterior surface for providing diffuse pressure application to the weakened **pharyngeal** -oesophageal segment area of the patient.

The pressure provided establishes a degree of integrity for the segment area sufficient to permit resonance vibration of the segment area to effect oesophageal speech. The pad assembly is pivotably and rotatably mounted to the support band; and a flexible strap mechanism for securing the **prosthesis** around the neck has its ends coupled to the free ends of the support band.

2

Derwent Class: P32
International Patent Class (Additional): **A61F-005/00**

25/26,TI/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.
016435388
WPI Acc No: 2004-593305/200457
Snoring treatment involves implanting microstimulator(s) in proximity of the anatomical structure(s), and energizing the microstimulator to deliver an electrical stimulation to the anatomical structure

25/26,TI/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.
014029396
WPI Acc No: 2001-513610/200156
Obstructive sleep apnea treatment involves applying electrical stimulus to electrodes at rate equal to that of natural respiration cycle so that oropharynx muscles are stimulated

25/26,TI/9 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.
011010556
WPI Acc No: 1996-507506/199651
Electrical stimulation treatment appts for sleep apnea . - Uses inflatable elastic balloon to provide signal from oropharynx with stimulation electrode placed on hypoglossal nerve.

25/34/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2005 Thomson Derwent. All rts. reserv.

016577368 **Image available**
WPI Acc No: 2004-736105/200472

Enhanced breathing device for insertion into user's mouth, comprises flexible tube having extra-oral, intermediate, and intra-oral segments, and stop mounted on to secure intra-oral segment within oropharynx

Patent Assignee: MILLER C S K (MILL-I)
Inventor: MILLER C S K
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040194785	A1	20041007	US 2003405782	A	20030401	200472 B
			US 2004816566	A	20040401	

Priority Applications (No Type Date): US 2004816566 A 20040401; US 2003405782 A 20030401
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20040194785	A1		18	A61M-016/00	CIP of application US 2003405782

Abstract (Basic): US 20040194785 A1

NOVELTY - An enhanced **breathing device** comprises a flexible hollow tube having an extra-oral segment extending externally from the user's mouth, an intra-oral segment extending into the user's mouth, and an intermediate segment extending between the extra- and intra-oral segments; and a stop mounted on the tube to secure the intra-oral segment within the **oropharynx** and to prevent lengthwise movement of the tube relative to the user's mouth.

DETAILED DESCRIPTION - An enhanced **breathing device** (10E) comprises a flexible hollow tube having proximal and distal ends, an outer perimeter, an extra-oral segment (14), an intra-oral segment (18), and an intermediate segment (16); and a stop (13) mounted on the tube to secure the intra-oral segment within the **oropharynx** (30) and to prevent lengthwise movement of the tube relative to the mouth of a user. The extra-oral segment extends to the proximal end and externally from the mouth of the user, and has opening(s). The intra-oral segment extends to the distal end and into the mouth of the user, and has opening(s) and a length extending beyond a retromolar space (27) into the **oropharynx** and terminating between the posterior tongue and the soft palate. The intermediate segment extends between the extra- and intra-oral segments and has a length extending along the buccopharyngeal pathway of the mouth of the user. An INDEPENDENT CLAIM is also included for a method of creating a buccopharyngeal airway in a mouth of a user, by providing a flexible hollow tube, **positioning** an extra-oral segment of the tube exterior to the mouth of the user, **positioning** an intra-oral segment of the tube beyond a retromolar space in the mouth of the user into the **oropharynx** and terminating between the posterior tongue and soft palate, and **positioning** an intermediate segment of the tube along the buccopharyngeal pathway of the mouth of the user.

USE - The enhanced **breathing device** is designed for **insertion** into a user's mouth to provide unobstructed buccopharyngeal pathway for inspiratory and expiratory airflow to enhance **breathing** during **sleep** or sedation of the user. It may be an anti- **snoring device** or a medical **device** that enhances **breathing** of the user during medical procedure (claimed).

ADVANTAGE - The inventive **device** provides unobstructed buccopharyngeal pathway for inspiratory and expiratory airflow to enhance **breathing** during **sleep** or sedation of the user. It reduces

dynamic vibratory resonance that results in **snoring** .

DESCRIPTION OF DRAWING(S) - The figure is a cross-sectional view of the upper side of a user's mouth having the inventive enhanced **breathing device**.

Enhanced **breathing device** (10E)
Stop (13)
Extra-oral segment (14)
Intermediate segment (16)
Intra-oral segment (18)
Open end of extra-oral segment (20)
Open end of intra-oral segment (21A)
Retromolar space (27)
Posterior **oropharynx** (30)
pp; 18 DwgNo 3/7

Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Components: The stop abuts a rear molar in the mouth of the user. It is adjustable lengthwise along the tube and slidably movable along the tube outer perimeter. The stop may be formed as a preformed expansion in the tube. An extension is provided on the intra-oral segment of the tube to prevent distal movement of the stop. The tube distal end is angled to facilitate **insertion** of the intra-oral segment into the retromolar space. The tube includes an outer preformed bend having a convex side and an opposite concave side. The extra-oral segment comprises an open end and ventilation opening(s), the intra-oral segment comprises an open end and ventilation opening(s) disposed on the convex and/or concave side of the tube, and the intermediate segment has ventilation opening(s) disposed on upper side(s) between the convex and concave sides of the tube and an opposite lower side of the tube. The open end of intra-oral segment is angled starting from an upper side of the tube to a lower side of the tube. The tube may have a performed outer shape including a first portion with a concave surface and an opposite convex surface, and a second portion with a convex surface and an opposite concave surface. A retention diaphragm is slidably mounted on the tube for securing the intermediate segment within the user's buccopharyngeal pathway. The **device** includes an oxygen source having an outlet disposed proximate the tube to allow oxygen to flow from the outlet of the oxygen source to the tube. The outlet of oxygen source is connected to the extra-oral segment, and the tube comprises a connector stem removably connected to the outlet of oxygen source. An end of oxygen source is disposed in surrounding relation to the extra-oral segment, or the outlet of oxygen source is connected to a mask that is disposed in surrounding relation to the extra-oral segment. Preferred Dimensions: The stop has an outer perimeter larger than the retromolar space, and the outer perimeter of the tube is smaller than the retromolar space.

Derwent Class: B07; D22; P34
International Patent Class (Main): A61M-016/00

25/34/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

016540248 **Image available**
WPI Acc No: 2004-698969/200468

Anti- snoring device for insertion into user's mouth to prevent, e.g. snoring , has flexible hollow tube having intraoral segment extending beyond retromolar space, into oropharynx and terminating between posterior tongue and soft palate

Patent Assignee: MILLER C S K (MILL-I)
Inventor: MILLER C S K
Number of Countries: 108 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040194787	A1	20041007	US 2003405782	A	20030401	200468 B
WO 200489271	A2	20041021	WO 2004US10030	A	20040401	200469

Priority Applications (No Type Date): US 2003405782 A 20030401
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20040194787	A1		13	A61F-005/56	
WO 200489271	A2	E		A61H-000/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20040194787 A1

NOVELTY - An anti- **snoring device** has flexible hollow tube including an extraoral segment extending to its proximal end and beyond user's outer lips; intraoral segment extending to its distal end and beyond a retromolar space, into **oropharynx** and terminating between posterior tongue and soft palate; and intermediate segment extending between the extraoral and intraoral segments and along buccopharyngeal pathway of the user's mouth.

DETAILED DESCRIPTION - An anti- **snoring device** (10) includes a flexible hollow tube for **insertion** into user's mouth (25), having proximal and distal ends and an outer perimeter, and a stop (13)extending from the outer perimeter of the tube on an intraoral segment for securing the intraoral segment against movement along a lengthwise direction of the tube within the user's **oropharynx** . The tube includes an extraoral segment (14) extending to the proximal end of the tube and has opening(s) for extending beyond the user's outer lips; an intraoral segment (18) extending to the distal end of the tube and has opening(s) and extending beyond a retromolar space (27) in the user's mouth, into the **oropharynx** and terminating between the posterior tongue and the soft palate; and an intermediate segment (18) extending between the extraoral and intraoral segments and along a buccopharyngeal pathway (11) of the user's mouth.

An INDEPENDENT CLAIM is also included for reducing **snoring** in a user's mouth by **inserting** into the user's mouth the flexible hollow tube; **positioning** the extraoral segment of the tube exterior to the user's lips; **positioning** the intraoral segment of the tube beyond a retromolar space in the user's mouth, into the **oropharynx** and terminating between the posterior tongue and the soft palate; and **positioning** an intermediate segment of the tube along the buccopharyngeal pathway of the user's mouth.

USE - The anti- **snoring device** is for **insertion** into a user's mouth for providing an unobstructed buccopharyngeal pathway for inspiratory and expiratory airflow to prevent **snoring** , **sleep disordered breathing** and/or **obstructive sleep apnea** .

ADVANTAGE - The anti- **snoring device** creates a unique buccopharyngeal pathway for inspiratory and expiratory airflow during **sleep**. It allows the buccopharyngeal pathway to be stented open even with the user's mouth closed and allows the user's dentition to remain in its natural and normal **position**, while accommodating normal jaw movement, thus normal swallowing, throat clearing, yawning, coughing and sneezing are not disturbed. It eliminates **snoring** , **sleep disordered breathing** , and **obstructive sleep apnea** because the intraoral segment stents open or separates the posterior tongue and the soft tissue of the soft palate, which tend to collapse and vibrate during **sleep** to create the sound of **snoring** . It allows free flow of air to the posterior oral cavity at a markedly reduced resistance that allows for a decreased vacuum (negative) pressure of inspiration and a reduced pulsion (positive) pressure of expiration.

DESCRIPTION OF DRAWING(S) - The figure is a cross-sectional view of the upper side of user's mouth having anti- **snoring device**.

Anti- **snoring device** (10)
Buccopharyngeal pathway (11)
Stop (13)
Extraoral segment (14)
Intermediate segment (16)
Intraoral segment (18)
Mouth (25)
Retromolar space (27)
Ventilation opening (24A-D)
pp; 13 DwgNo 3/5

Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Component: The stop comprises an outer perimeter that is larger than the retromolar space, and an inner aperture that is slightly smaller than the outer perimeter of the tube to resist movement along the tube. The outer perimeter of the tube is smaller than the retromolar space. The inner aperture of the stop is mounted on the outer perimeter of the tube when a force is applied by the user. The extraoral segment and intraoral segment comprise an open end. The tube comprises an outer preformed bend having a convex side and an opposite concave side. The intraoral segment, intermediate segment, and extraoral segment comprise ventilation opening(s) (24A-D). The ventilation opening(s) of the intermediate segment is disposed on an upper side between the convex and concave sides of the tube and an opposite lower side of the tube. The ventilation opening(s) of the extraoral segment is disposed on the convex side of the tube. The anti- **snoring device** further includes retention diaphragm on the intermediate segment of the tube for securing the intermediate segment within the user's buccopharyngeal pathway. The retention diaphragm is flexible and comprises a first side for conforming to the user's inner lips and a second side for conforming to an outer surface of the user's teeth. The retention diaphragm is adjustable along the length of the intermediate segment. It has an inner aperture that is smaller than the outer perimeter of the tube and mounted along the outer perimeter of the tube. The tube has a performed outer shape comprising a first portion with a first concave surface and an opposite first convex surface, and a second

portion with a second convex surface and an opposite second concave surface. The stop is formed as a preformed expansion in the tube.

Preferred Property: The stop has a thickness of 0.3-2.5 French. It is adjustable along the length of the intraoral segment. The end of the intraoral segment is angled to facilitate **insertion** of the intraoral segment into the retromolar space. The intraoral segment is angled starting from an upper side of the tube to a lower side of the tube. A perimeter of the retention diaphragm around the tube is rectangular in shape.

POLYMERS - Preferred Material: The flexible hollow tube, the stop, and retention diaphragm, each comprises a non-latex polyvinyl chloride material

Derwent Class: A96; P32
International Patent Class (Main): A61F-005/56; A61H-000/00

25/34/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013697627 **Image available**
WPI Acc No: 2001-181851/200118
Collapsible device for treating, e.g., nasal- oropharyngeal obstructions, includes collapsible nasal- oropharyngeal tube, and retaining fiber, tie, or clasp for retaining the tube in collapsed state
Patent Assignee: PHARMASYS INT LLC (PHAR-N)
Inventor: ZAMMIT G
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6183493	B1	20010206	US 99379606	A	19990824	200118	B

Priority Applications (No Type Date): US 99379606 A 19990824
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6183493	B1		10	A61M-029/00	

Abstract (Basic): US 6183493 B1

NOVELTY - A collapsible **device** , comprises a collapsible nasal-**oropharyngeal** tube (1), in which in an expanded state, the tube's distal end is flared and the lumen (5) of the tube defines an unobstructed airway, and in a collapsed state at least the tube's distal end width is reduced; and a retaining fiber, tie, or clasp (6) for retaining the tube in a collapsed state.

USE - The invention is useful for treating nasal-**oropharyngeal** obstructions, **sleep apnea** , and related **breathing** disorders.

ADVANTAGE - The invention provides effective, convenient, and comfortable treatment of nasal-**oropharyngeal** obstructions, **sleep apnea** , and related **breathing** disorders.

DESCRIPTION OF DRAWING(S) - The figures show a view of the collapsed tube, and a side view of the collapsed tube.

Tube (1)
Lumen (5)
Retaining fiber, tie, or clasp (6)
Release fiber (7)
pp; 10 DwgNo 2, 4/12

Technology Focus:
TECHNOLOGY FOCUS - POLYMERS - Preferred Material: The tube comprises polyvinylchloride, polyurethane, polyethylene, or polypropylene.
INSTRUMENTATION AND TESTING - Preferred **Device**: The **device** also includes an anesthetic coating, a lubricant coating, a release fiber (7), and a mandrel mounted through the lumen of the tube. The **device** may include a sheath with a lumen, in which the sheath covers the tube and the sheath's lumen retains the tube in a collapsed state.
Derwent Class: A96; D22; P34
International Patent Class (Main): A61M-029/00

25/34/8 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011905524 **Image available**
WPI Acc No: 1998-322434/199828
Device for preventing snoring and sleep apnea - has pair of tubes for insertion through nostrils of subject, outer ends of tubes being joined together by bridge to locate inner ends in oropharynx region
Patent Assignee: CHRAP RP LTD (CHRA-N)
Inventor: GINDIS R
Number of Countries: 072 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9823233	A1	19980604	WO 97IL387	A	19971126	199828	B
AU 9851325	A	19980622	AU 9851325	A	19971126	199844	

Priority Applications (No Type Date): IL 119693 A 19961126
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9823233	A1	E	19	A61F-005/56	

Designated States (National): AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE GH HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN
Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9851325	A	A61F-005/56	Based on patent WO 9823233

Abstract (Basic): WO 9823233 A
The **device** comprises a pair of tubes (12) of a diameter to permit their **insertion** through the nostrils of a subject, and of a length such that when so **inserted** the tubes' outer ends are located externally of the subject's nostrils and the inner ends of the tubes (12) extend through the naso**pharynx** region to the **oropharynx** region.
The outer ends of the tubes (12) are joined by a bridge limiting the inward movement of the tubes (12). The inner end portion has perforations (11) or grooves running longitudinally along the sides of the tubes (12), allowing the tubes' ends to cave in while swallowing. The inner end portion contains a pair of opposite holes for facilitating the air passage.
ADVANTAGE - Proves simple and effective **device**.
Dwg.3/8
Derwent Class: P32

International Patent Class (Main): A61F-005/56

25/34/10 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011007998 **Image available**
WPI Acc No: 1996-504948/199650
Universal, user-adjustable oral cavity appliance designed to control snoring and reduce sleep apnoea - includes lingual mandibular pressure strap to contact and embed in lingual mandibular tissues below mandibular anterior teeth and to push against contacted lingual mandibular tissues
Patent Assignee: **SNORE**LESS CORP (SNOR-N)
Inventor: AGRE B T; BUZZARD L D; BUZZARD R D; KENYON P L
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5570704	A	19961105	US 93144652	A	19931028	199650	B
			US 94359881	A	19941220		

Priority Applications (No Type Date): US 94359881 A 19941220; US 93144652 A 19931028
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5570704	A		11	A61F-005/56	CIP of application US 93144652

Abstract (Basic): US 5570704 A

The **appliance** comprises a lingual mandibular pressure strap **device** to contact and to embed in the lingual mandibular tissues below the mandibular anterior teeth and to push against the contacted lingual mandibular tissues. There is a labial maxillary pressure strap **device** to contact and to embed in the labial maxillary tissues above the maxillary anterior teeth and to pull against the contacted labial maxillary tissues.

There is also a **device** for adjustably connecting the straps such that the relative **position** of each the strap to the other may be varied to obtain a separation between the maxilla and mandible and a forward thrust of the mandible sufficient to prevent occlusion of the **oropharyngeal** airway.

ADVANTAGE - Can be used by a person with no natural dentition or **prosthetic** dentition to give relief from **snoring** and **sleep** apnoea and that provides for **breathing** through mouth, nares or both.

Dwg.1/5

Derwent Class: P32
International Patent Class (Main): A61F-005/56

25/34/12 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010305500 **Image available**
WPI Acc No: 1995-206760/199527
An oral device for regulating the jaw position during sleep. - keeps the lower jaw forward, and prevents occlusion of the nasopharynx, the

oropharynx , and the hypopharynx, preventing or reducing snoring
Patent Assignee: INGEMARSSON-MATZEN N (INGE-I); INGEMARSSON N S (INGE-I); INGERMARSSON-MATZEN N (INGE-I); DE VOSS T (DVOS-I)
Inventor: INGEMARSSON-MATZEN N; VOSS T; INGEMARSSON N S; DE VOSS T; INGEMARSSON-MATZEN S
Number of Countries: 060 Number of Patents: 011
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9514449	A1	19950601	WO 94DK438	A	19941124	199527	B
AU 9510638	A	19950613	AU 9510638	A	19941124	199539	
DK 9301315	A	19950613	DK 931315	A	19931124	199610	
NO 9601893	A	19960510	WO 94DK438	A	19941124	199632	
			NO 961893	A	19960510		
FI 9602185	A	19960719	WO 94DK438	A	19941124	199642	
			FI 962185	A	19960523		
EP 794749	A1	19970917	WO 94DK438	A	19941124	199742	
			EP 95901359	A	19941124		
AU 691849	B	19980528	AU 9510638	A	19941124	199833	N
JP 10508762	W	19980902	WO 94DK438	A	19941124	199845	
			JP 95514760	A	19941124		
CA 2177284	C	20000606	CA 2177284	A	19941124	200041	
			WO 94DK438	A	19941124		
EP 794749	B1	20030611	WO 94DK438	A	19941124	200346	
			EP 95901359	A	19941124		
DE 69432822	E	20030717	DE 632822	A	19941124	200355	
			WO 94DK438	A	19941124		
			EP 95901359	A	19941124		

Priority Applications (No Type Date): DK 941077 A 19940919; DK 931315 A 19931124; DK 94152 A 19940207
Cited Patents: EP 3123668; EP 337201; GB 2264868; US 5092346
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9514449	A1	E	32	A61F-005/56	
Designated States (National): AM AU BB BG BR BY CA CN CZ EE FI GE HU JP KE KG KP KR KZ LK LR LT LV MD MG MN MW NO NZ PL RO RU SD SI SK TJ TT UA US UZ VN					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ					
AU 9510638	A			A61F-005/56	Based on patent WO 9514449
DK 9301315	A			A61F-005/56	
NO 9601893	A			A61F-005/56	
FI 9602185	A			A61F-000/00	
EP 794749	A1	E		A61F-005/56	Based on patent WO 9514449
Designated States (Regional): AT BE CH DE DK ES FR GB IT LI NL SE					
AU 691849	B			A61F-005/56	Previous Publ. patent AU 9510638 Based on patent WO 9514449
JP 10508762	W		27	A61F-005/56	Based on patent WO 9514449
CA 2177284	C	E		A61F-005/56	Based on patent WO 9514449
EP 794749	B1	E		A61F-005/56	Based on patent WO 9514449
Designated States (Regional): AT BE CH DE DK ES FR GB IT LI NL SE					
DE 69432822	E			A61F-005/56	Based on patent EP 794749 Based on patent WO 9514449

Abstract (Basic): WO 9514449 A
An anti-**snore device** (1) comprises two horse-shoe shaped members

(2,3) joined together by integrated resilient hinges (4,4'). Surface (5) refers to the lower surface of the upper member, and surface (6) refers to the upper surface of the lower member. The lingual flange (7) of the lower member being that part of the **device** which forces the lower jaw forward, thereby preventing occlusion of the naso**pharynx**, the **oropharynx** and the hypo**pharynx**. The forward dis**placement** of the lower jaw about 22 mm from the intercuspidal **position** along the intercuspidal **position** /maximum opening point of the jaw is between 5 mm and 11 mm.

The **device** is preferably made from a resilient non-toxic plastics material such as vinyl acetate-ethylene copolymer, or a polyolefin such as polyethylene or polypropylene, the most pref. material being ethylene vinyl acetate copolymer, formed by injection moulding. The hinges (4,4') may be reinforced by metal or plastics **insert**, by means of which the force needed to close the two members (2,3) together is between 0.2 and 20 Newton.

Also claimed is provision of a kit comprising the **device** (1) and a temperature indicator, indicating the temperature at which the material softens sufficiently for an individual to adapt its shape to their own requirements. The temperature being in the range 40-80 deg. C. pref. 50-80 deg. C, most pref. about 70 deg. C..

USE - To prevent or reduce the frequency of **snoring** , and to relieve guided trans**positions** of the jaws.

ADVANTAGE - An easy, simple **device** which can be adapted to fit without skilled professional assistance, that is comfortable in use and will not harm gums, tongue or teeth.

Dwg.1/13

Derwent Class: A96; D22; P32
International Patent Class (Main): A61F-000/00; A61F-005/56
International Patent Class (Additional): A61C-007/00; A61C-007/08

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File 324:German Patents Fulltext 1967-200528
         (c) 2005 Univentio
Set     Items   Description
S1         46   OROPHARYN?
S2        699   PHARYN? OR EPIGLOTTI? OR GLOTTI? OR HYOID
S3       5947   PROSTHES?S OR PROSTHETIC? OR ORTHOS?S OR ORTHOTIC?
S4      30178   IMPLANT? OR GRAFT???
S5    1087714   APPLIANCE? ? OR DEVICE? ?
S6     429152   NITINOL OR WIRE OR SPRING OR SUPERELASTIC OR SUPER()ELASTIC
S7         30   APNEA OR SNORING
S8         13   (OBSTRUCTIVE OR SLEEP()DISORDERED)()BREATHING OR CENTRAL()-
                  ALVEOLAR()HYPOVENTILATION
S9          2   HYPERSOMNIA OR HYPERSOMNOLENCE OR (PICKWICK? OR ONDINE)()S-
                  YNDROME
S10        12   S1(S)S3:S6
S11       133   S2(S)S3:S6
S12         0   S7:S9 AND S10
S13         1   S7:S9 AND S11
S14       112   SNORE? ?
S15        13   (S10:S11 AND S14) NOT S13
S16        12   S10 NOT (S13 OR S15)
S17        10   S7/TI OR S8/TI OR S9/TI
S18        10   S17 NOT (S10 OR S13 OR S15)

13/3,K/1
DIALOG(R)File 324:German Patents Fulltext
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0003726880    **Image available**
Implants and procedures to the treatment of snore
Implantate und Verfahren zur Behandlung von Schnarchen
Patent Applicant/Assignee:
  Pi Medical Inc,  St. Paul,Minn., US
Inventor(s):
  Conrad Timothy R,  Eden Prairie,Minn., US
  Knudson Mark B,  Shoreview,Minn., US
  Griffin Jerry C,  Tiburon,Calif., US
Patent and Priority Information (Country, Number, Date):
  Patent:              DE 10045672 A1 20010531
  Application:         DE 10045672 20000915
  Priority Application: US 99398991 19990917; US 99434653 19991105; US
    2000513039 20000225; US 2000513042 20000225; US 2000513432 20000225; US
    2000602141 20000623  (US 39899199; US 43465399; US 51303900; US
    51304200; US 51343200; US 60214100)
Publication Language: German
Fulltext Word Count (English): 10884
Fulltext Word Count (German) : 9627
Fulltext Word Count (Both)   : 20511
Fulltext Availability:
  Description (English machine translation)
  Claims (English machine translation)
  Description (German)

Abstract (English machine translation)
  An appliance to the application when treating snore of a patient
  suffering under  snoring  includes an implant from biokompatiblem
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material, that is rated, in order to be embedded in...

Description (English machine translation)
... **snores** up to 20 percent of the adult population automatically. Huang et al. "Biomechanics of **Snoring** ", Endeavour, sides 96-100, band 19, No. 3 (1995). **Snores** a serious cause of an...

...**snore**, was an effective treatment of **snore** unreliably. Such a treatment can include mouth protection **appliances** or other aids, that are carried by the **snorer** during the **sleeps**. However, patients find...

...Siehe for example Schwartz et al., "Effects of electrical stimulation to the soft palate on **snoring** and **obstructive sleep apnea** ", J. **Prosthetic** Dentistry, sides 273-281, 1986. **Appliances** to the application of such a stimulation are in the US-Patenten Nrn. 5,284,161 and 5,792,067 described. Such **appliances** are aids, that necessitate, that the patient holds on to a regular application manner as...

...al in Wiltfang. "Ridge results on daytime submandibular electrostimulation of supra**hyoid**al muscles to prevent nighttime **hypopharyngeal** collapse in **obstructive sleep apnea syndromes**", internationally journal of oral & Maxillofacial Surgery, sides 21-25, 1999, discusses.
Surgical treatments were...

...supra, on 99. Uvulopalato**pharyn**goformung (UPPP) becomes et al also in Harris. "The Surgical treatment of **snoring** ", journal of Laryngology of and Otology, sides 1105-1106, 1996, described, that a distance from...

...soft palate describes. An evaluation of a treatment of **snore** becomes et al in Cole. " **Snoring** : A review and a Reassessment", journal of of Otolaryngology, sides 303-306 (1995) discusses...

Claims (English machine translation)
... to change the dynamic behavior.
50. Method for claim 49, inclusively a preparing of the **implant** , so that it shows a mass, that is enough, in order to change the dynamic behavior after the **implantation** without that a function of the soft palate to lock a nose passageway of the patient during the gulps from a **pharynx** of the patient from namely, is essentially impaired.
51. Method for claim 49, inclusively preparing of the **implant** , in order to muffle the dynamic behavior after the **implantation** , without that a function of the soft palate to lock a nose passageway of the patient during the gulps from a **pharynx** of the patient from namely, is essentially impaired.
52. Method for claim 49, inclusively preparing of the **implant** , about which to become stiff soft palates in order to change the dynamic behavior after the **implantation** without that a function of the soft palate to lock a nose passageway of the patient during the gulps from a **pharynx** of the patient from namely, is essentially impaired.
53. Method for claim 49, inclusively preparing...

...a forefront of the patient in direction.
54. Method for claim 53, with which the **implant** shows a stiff ness, that is chosen, in order to shore up the soft palate, in order to change the dynamic behavior after the **implantation** , without that a function of

the soft palate to lock a nose passageway of the patient during the gulps from a **pharynx** of the patient from namely, is more essentially impaired.
55. Method for claim 54, with...

15/3,AB/1
DIALOG(R)File 324:German Patents Fulltext

0003871454
Means to preventing the Schlafapnoesyndroms und/oder of the snore
Mittel zum Verhindern des Schlafapnoesyndroms und/oder des Schnarchens
Patent Applicant/Assignee:
Fege Wolfgang, Dr.med.,33014 Bad Driburg, DE
Inventor(s):
Fege Wolfgang, Dr.med.,33014 Bad Driburg, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 10125519 A1 20021128
Application: DE 10125519 20010523
Priority Application: DE 10125519 20010523 (DE 10125519)
Publication Language: German
Fulltext Word Count (English): 1679
Fulltext Word Count (German) : 1372
Fulltext Word Count (Both) : 3051

15/3,AB/3
DIALOG(R)File 324:German Patents Fulltext

0003851007
Appliance to preventing the snore
Vorrichtung zum Verhindern des Schnarchens
Patent Applicant/Assignee:
Molleken Heinz H, 46562 Voerde, DE
Inventor(s):
Molleken Heinz H, 46562 Voerde, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 19909236 C2 20020814
Application: DE 19909236 19990303
Priority Application: DE 19909236 19990303 (DE 19909236)
Publication Language: German
Fulltext Word Count (English): 3970
Fulltext Word Count (German) : 3229
Fulltext Word Count (Both) : 7199

Abstract (English machine translation)
The invention involves an **appliance** to the effective preventing of the human **snore** and dry up of the mouth mucous membranes, which one over a jaw of the human being stulpbare and at this form-wise adjusted bonnet, that is trained bonnet U-shaped in the cross-section, the bonnet is two bridge-good areas and a crosswise-bridge-good area connecting the bridge-good areas shows, the bridge-good areas and the crosswise-bridge-good area of the bonnet together the U-shaped cross-section profile,. that is marked by it, forms that the

crosswise-bridge-good area is interconnected at his for the bridge-good areas of averted side in the fore area with a wall apron, which is vertically geared to the crosswise-bridge-good area.

15/3,AB/4

DIALOG(R)File 324:German Patents Fulltext

0003846460
Orofaciale denture rail
Orofaciale Gebissschiene
Patent Applicant/Assignee:
Schlieper Jorg W, Dr. Dr.,22453 Hamburg, DE
Inventor(s):
Brinkmann Bernhard, Dr.,22453 Hamburg, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 10029875 C2 20020808
Application: DE 10029875 20000616
Priority Application: DE 10029875 20000616 (DE 10029875)
Publication Language: German
Fulltext Word Count (English): 5033
Fulltext Word Count (German) : 3907
Fulltext Word Count (Both) : 8940

Abstract (English machine translation)
An invention-appropriate orofaciale denture rail (11) to the Therapierung of the primary **snore** and the **obstructive** Schlafapnoesyndroms possesses an upper jaw rail (13) and a lower jaw rail (15) at first separate by it, that are together interconnected in solvable manner by means of with demand entfernbaren, preferably soft-elastic connection material (35, 37). The mutual **position**ing of Oberkieferschiene (13) and lower jaw rail (15) lets itself alter through it. the upper jaw rail (13) and the lower jaw rail (15) ever show one right one and a left one to rail part, that ever is together interconnected over a slim metallic head connection clip (21) as well as sub connection clips (27). This leads to a slim construction with low volume of the entire denture rail (11) and elevated Tragekomfort.

15/3,AB/5

DIALOG(R)File 324:German Patents Fulltext

0003843364
Appliance to preventing the snore
Vorrichtung zum Verhindern des Schnarchens
Patent Applicant/Assignee:
Eversberg Willi, 40597 Dusseldorf, DE
Inventor(s):
Eversberg Willi, 40597 Dusseldorf, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 10135532 A1 20020711
Application: DE 10135532 20010720
Priority Application: DE 10100406 20010108; DE 10135532 20010720 (DE 10100406; DE 10135532)

Publication Language: German
Fulltext Word Count (English): 646
Fulltext Word Count (German) : 1317
Fulltext Word Count (Both) : 1963

Abstract (English machine translation)
An **appliance** to preventing of the **snore** , with which the user's tongue is depressed during the **sleeps** in direction of the lower jaw, is trained as a type of spoon, that one the user's lower jaw corresponding and on this aufsteckbare furrow arched as well as a stalk originating from this furrow, that press on the user's tongue in the business **position**, with what a mass workable at first plastic is angeordnet in the furrow, that keeps a certain elasticity after hardening and distorting, shows.

15/3,AB/6
DIALOG(R)File 324:German Patents Fulltext
(c) 2005 Univentio. All rts. reserv.

0003833380
Intraorales snore therapy appliance
Intraorales Schnarch-Therapie-Gerat
Patent Applicant/Assignee:
Borowsky Michael, Dr.med.,79539 Lorrach, DE
Inventor(s):
Borowsky Michael, Dr.med.,79539 Lorrach, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 10012687 C2 20020613
Application: DE 10012687 20000315
Priority Application: DE 10012687 20000315 (DE 10012687)
Publication Language: German
Fulltext Word Count (English): 4697
Fulltext Word Count (German) : 3980
Fulltext Word Count (Both) : 8677

Abstract (English machine translation)
Intraorales **snore** therapy **appliance** to the opening the with the **snorer** narrowed, rear **pharynx** area through Vorverlagerung of the lower jaw marked the average denture radius accordingly arched bite groove (11, 12) through one flat, quaderformigen basic bodies (1), that stretch up to the cuspids of an average denture and resemble reflection-like in his/its upper side and underside one each, with a horizontal Aufbissflache (8) is trained, with what the bite groove (12) of the underside opposite the upper jaw of corresponding measurements opposite the bite groove (11), that is put back upper side, about one of the natural, normal **position** of the lower jaw.

15/3,AB/7
DIALOG(R)File 324:German Patents Fulltext
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0003810499
It turns into the treatment of Rhonchopathie
Gerat zur Behandlung von Rhonchopathie
Patent Applicant/Assignee:

Gunther Sybille, Dr.med.,79737 Herrischried, DE
Inventor(s):
Gunther Sybille, Dr.med.,79737 Herrischried, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 10040906 A1 20020228
Application: DE 10040906 20000818
Priority Application: DE 10040906 20000818 (DE 10040906)
Publication Language: German
Fulltext Word Count (English): 1767
Fulltext Word Count (German) : 1472
Fulltext Word Count (Both) : 3239

Abstract (English machine translation)
The intra--oral **appliance** to the treatment of Rhonchopathie (**snore**) includes an upper part (Palatinalteil) (1) and a low part (lingual part) (2), that are together interconnected over intermaxillare joints (3, 4) at the side. Palatinalteil and lingual part are as trained noble metal **wire** of existing clips from a hochverdrillten, that anew itself, ventral, to the back, distal, widens. The joints (3, 4) wise at the side Stutzelemente (5, 6), that supports itself on the user's lateral tooth rows, on. The **appliance** is applied intra--oral during the **sleeps**, with what it hovers in the mouth cave, and the lower jaw in a **position** easily put forward in reference on the upper jaw **position**iert.

15/3,AB/8
DIALOG(R)File 324:German Patents Fulltext
(c) 2005 Univentio. All rts. reserv.

0003807611
Appliance to preventing of the snore and to the prevention an oxygen sub repletion during the sleeps
Vorrichtung zum Verhindern des Schnarchens und zur Verhinderung einer Sauerstoffuntersattigung wahrend des Schlafens
Patent Applicant/Assignee:
Heinzer Waltraud, 35039 Marburg, DE
Inventor(s):
Heinzer Waltraud, 35039 Marburg, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 10011687 C2 20020228
Application: DE 10011687 20000310
Priority Application: DE 10011687 20000310; DE 29905809 U 19990330 (DE 10011687; DE 29905809)
Publication Language: German
Fulltext Word Count (English): 2681
Fulltext Word Count (German) : 2230
Fulltext Word Count (Both) : 4911

Abstract (English machine translation)
Appliance to preventing of the **snore** and to the prevention an oxygen sub repletion during the **sleeps** with a **prosthesis** part and a tongue part angeordneten at the **prosthesis** part with following Merkmalen:$A - the **prosthesis** slice shows at least two Aufbissschienen. which show at teeth of the waiter and lower jaw of adjusted Aufbissflachen in each case. with what are the upper and low Aufbissflachen so to each other angeordnet. that the lower jaw is angeordnet in the closed condition in put forward

position. $A - at least an Aufbissflache is trained a part one cog of covering Aufbissflache as one in each case.$A - the **appliance** is anordbar at least a low Aufbissflache of the **appliance** through a Klemmwirkung of this at the teeth of the lower jaw solvable. $A - the at least two Aufbissschienen is together interconnected over a palate clip or a palate plate. $A - at the palate clip or at the palate plate is one a tongue reason of fixing Pelotte angeordnet. with what does the Pelotte be trained as a Pelotte pushing down the tongue before an uvula.

15/3,AB/9
DIALOG(R)File 324:German Patents Fulltext

0003761250
Intraorales snore therapy appliance
Intraorales Schnarch-Therapie-Gerat
Patent Applicant/Assignee:
Borowsky Michael, Dr.med.,79539 Lorrach, DE
Inventor(s):
Borowsky Michael, Dr.med.,79539 Lorrach, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 10012687 A1 20011004
Application: DE 10012687 20000315
Priority Application: DE 10012687 20000315 (DE 10012687)
Publication Language: German
Fulltext Word Count (English): 4228
Fulltext Word Count (German) : 3578
Fulltext Word Count (Both) : 7806

Abstract (English machine translation)
It becomes an intra--oral **snore** therapy **appliance** to the opening the with the **snorer** narrowed, rear **pharynx** arm through Vorverlagerung of the lower jaw proposed, this from one flat, quaderformigen basic body (1), whose width is zwischden approximately immediately for the distance the cuspids of an average denture and ever resembles one reflection-like ones in his/its upper side and underside, exists been trained the average denture radius accordingly arched bite groove with a horizontal Aufbissflache (8) 11, 12, with what about one low measurement opposite the bite groove (11), that is put back underside, the bite groove (12) of the underside. When starting of the **appliance** into the mouth, the fore tooth rows of the waiters reach, and lower jaw in the bite grooves (11, 12); waiters, and lower jaws are held in one relaxed and physiognomisch natural **position**, in which a collapse doesn't occur in the **pharynx** area. One at the forehead surface (2) of the basic body (1) installed, itself on both sides stretching clips (13) comes prevent when starting of the **appliance** at the mouth to the installation, that the entire basic body (1) can reach into the mouth cave in the **sleep**. Since the fore tooth rows come nurd in intervention, the **appliance** is universally employable and makes denture surveyings redundant. The manufacture is simple and advantageous.

15/3,AB/10
DIALOG(R)File 324:German Patents Fulltext

0003706056
Appliance to the improvement of the nose respiration to the elimination of the snore and an Apnoe interconnected with it
Vorrichtung zur Verbesserung der Nasenatmung zur Beseitigung des Schnarchens und einer damit verbundenen Apnoe
Patent Applicant/Assignee:
Geigis Friedhelm, Dr.,40223 Dusseldorf, DE
Inventor(s):
Geigis Friedhelm, Dr.,40223 Dusseldorf, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 10012622 A1 20010208
Application: DE 10012622 20000315
Priority Application: DE 10012622 20000315 (DE 10012622)
Publication Language: German
Fulltext Word Count (English): 763
Fulltext Word Count (German) : 593
Fulltext Word Count (Both) : 1356

Abstract (English machine translation)
The problem with the **snore** is a disturbed nose respiration, with what the palate sail forms a Schwingkreis over the air column in the nose together with the nose wings.$A the previous base exists to the one in the active blowing of air into the nose. To the other to increase the tension of the nose wings through it from outside and to increase the nose openings through it and to stabilize. Another base consists of a change of the air current of the **pharynx** area through **appliances** , that the lower jaw vorverlagern.$A more final what can have connected with momentary pains and Kauproblemen has the disadvantage of a lengthening of the joint capsule of the jaw joint. The new **appliance** doesn't show these disadvantages.$A the developed **snore** therapy **appliance** exists from two hollow forms (1), that are brought in into the nose atria. By the expansion of the nose openings (2) and the stabilization of the nose wings (3), the resonance ability of the Schwingkreises is interrupted nose wing airflow palate. The **snore** stops, the nose respiration is clearly improved.$A through the special form of the hollow forms with lateral thickening (6) and bulge-good thickening on the low end (7) and a **springy** connection (9) between the form the argues and a stabilization of the situation is gained of the left nostril in the nose atria.$A through the mounting of filters (8) can be achieved a cleaning of the inhaled air.$A through the mounting from...

5

15/3,AB/11
DIALOG(R)File 324:German Patents Fulltext

0003661959
Appliance to preventing of the snore and to the prevention an oxygen sub repletion during the sleeps
Vorrichtung zum Verhindern des Schnarchens und zur Verhinderung einer Sauerstoffuntersattigung wahrend des Schlafens
Patent Applicant/Assignee:
Heinzer Waltraud, 35039 Marburg, DE
Inventor(s):
Heinzer Waltraud, 35039 Marburg, DE

Patent and Priority Information (Country, Number, Date):
Patent: DE 10011687 A1 20001102
Application: DE 10011687 20000310
Priority Application: DE 10011687 20000310; DE 29905809 U 19990330 (DE 10011687; DE 29905809)
Publication Language: German
Fulltext Word Count (English): 2638
Fulltext Word Count (German) : 2197
Fulltext Word Count (Both) : 4835

Abstract (English machine translation)
Appliance to preventing of the **snore** and to the prevention an oxygen sub repletion during the **sleeps** with a **prosthesis** part and a tongue part angeordneten at the **prosthesis** part. shows at least two Aufbissschienen the **prosthesis** slice with what. which show at teeth of the waiter and lower jaw of adjusted Aufbissflachen in each case. the upper and low Aufbissflachen (5) with what. 6. 29, so to each other angeordnet is. that the lower jaw (40) is angeordnet in the closed condition in put forward **position**. at least an Aufbissflache (6) with what as one is trained a part covering Aufbissflache (6) one cog each (30 to 34). the **appliance** (1) at least a low Aufbissflache (5) with what through a Klemmwirkung of this. 6, the **appliance** (1) exclusively at the teeth (30 to 34) the lower jaw (40) solvable anordbar is. the at least two Aufbissschienen (3) with what. 4, over a palate clip or a palate plate (17) together interconnected is. is one angeordnet a tongue reason of fixing Pelotte (20) with what at the palate clip or at the palate plate (17). the Pelotte (20) with what as a Pelotte (20) pushing down the tongue (49) before an uvula is trained.

15/3,AB/12
DIALOG(R)File 324:German Patents Fulltext
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0003652169
Appliance to preventing of the snore , grind of teeth and dry up of mouth mucous membranes,
Vorrichtung zum Verhindern des Schnarchens, Zahneknirschens und Austrocknens von Mundschleimhauten
Patent Applicant/Assignee:
Molleken Heinz H, 46562 Voerde, DE
Inventor(s):
Molleken Heinz H, 46562 Voerde, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 19909236 A1 20000928
Application: DE 19909236 19990303
Priority Application: DE 19909236 19990303 (DE 19909236)
Publication Language: German
Fulltext Word Count (English): 3479
Fulltext Word Count (German) : 2823
Fulltext Word Count (Both) : 6302

Abstract (English machine translation)
The invention involves an **appliance** to the effective preventing of the human **snore** and dry up of the mouth mucous membranes, which one over a jaw of the human being stulpbare and at this form-wise adjusted bonnet,

that is trained bonnet U-shaped in the cross-section, the bonnet is two bridge-good areas and a crosswise-bridge-good area connecting the bridge-good areas shows, the bridge-good areas and the crosswise-bridge-good area of the bonnet together the U-shaped cross-section profile, that is marked by it, forms that the crosswise-bridge-good area is interconnected at his for the bridge-good areas of averted side in the fore area with a wall apron, which is vertically geared to the crosswise-bridge-good area.

15/3,AB/13

DIALOG(R)File 324:German Patents Fulltext

0003449644
Appliance to the relief of the nose respiration
Vorrichtung zur Erleichterung der Nasenatmung
Patent Applicant/Assignee:
Augenstein Werner, 75210 Keltern, DE
Inventor(s):
Augenstein Werner, 75210 Keltern, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 19616875 C2 19980910
Application: DE 19616875 19960426
Priority Application: DE 19616875 19960426 (DE 19616875)
Publication Language: German
Fulltext Word Count (English): 2181
Fulltext Word Count (German) : 1839
Fulltext Word Count (Both) : 4020

Abstract (English machine translation)
An **appliance** is described to the reduction of a hindrance of the nose respiration. Erfindungsgemass is intended that the **appliance** (1) shows itself in a longitudinal direction of the **appliance** (1) of stretching wing elements (2a, 2b) in two, the at least partially with her/its/their one end, 2a ", 2b ") in front into an user's two nose areas einschiebbar is, that the two wing elements (2a, 2b) are mechanically interconnected on her/its/their other end (2a', 2b') over a connection element (3), and that the **appliance** (1) shows an Arretiereinrichtung (5), through which the **appliance** (1) is befestigbar in the nose, on her/its/their other end (2a', 2b').

16/6/2

0003952337 **Image available**
Ambroxol fur die Behandlung von schmerzhaften Zustanden im Mund und Rachenraum
Publication Year: 2003

16/6/10

0002841995
VORRICHTUNG ZUR ERZEUGUNG KONTINUIERLICH POSITIVER DRUCKE IN DEN LUFTWEGEN BEI SPONTANATMUNG MIT BESONDERER EIGNUNG FUER FRUEH- UND NEUGEBORENE
Publication Year: 1992

16/3,AB/5
DIALOG(R)File 324:German Patents Fulltext

0003622009
Special oropharyngeale air lift with blocker seal
Spezielle oropharyngeale Luftbrucke mit Blockermanschette
Patent Applicant/Assignee:
Yilmaz Bulent, Dr.med.,40225 Dusseldorf, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 19848429 A1 20000427
Application: DE 19848429 19981021
Priority Application: DE 19848429 19981021 (DE 19848429)
Publication Language: German
Fulltext Word Count (English): 1972
Fulltext Word Count (German) : 1701
Fulltext Word Count (Both) : 3673

Abstract (English machine translation)
The management from difficult intubations is in an emergency and in the anaesthesia and intensive medicine of central importance. Protection demands on a **device** are raised, which ensures an artificially respirating of the fehlintubierten patient in situations of difficult intubation. It concerns a special **oropharyngeale** air lift (1) with blocker seal (2), which possesses the characteristic that it locks the throat with Endotrachealtubus (7) already lying with blocked seal (2) hermetically, so that when artificial respiration over the **oropharyngeale** air lift (1) with lying Endotrachealtubus (7) no air can escape beside. The preferential execution form is characterized by the fact that the blocker seal (2) possesses a recess (3), which is so formed that usual Endotrachealtuben (7) fits in and puts when blowing the seal (2) up these closely around the Endotrachealtubus (7) and locks the throat closely. The **oropharyngeale** air lift (1) preferably possesses at the proximal end an adapter (8) for usual artificially respirating systems. The blocker seal (2) is preferably over a pilot balloon with valve (9) blowing up and blockable and by means of an attachment volume to the patient fastened. This **device** is **inserted** after intubation into the throat and **placed** in such a way that the Endotrachealtubus (7) comes to lie into the recess (3) envisaged for it. The seal (2) is then blocked and the throats thus with already

16/3,AB/6
DIALOG(R)File 324:German Patents Fulltext

0003618525
Hypopharyngo-Laryngoskop mit gelenkigem oder flexiblem und aufspreizbarem Mundspatel
Patent Applicant/Assignee:
GOETZE THOMAS, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 29921801 U1 20000323
Application: DE 29921801 19991210
Priority Application: DE 29921801 U 19991210 (DE 29921801)
Publication Language: German

Fulltext Word Count (English): 1167
Fulltext Word Count (German) : 1005
Fulltext Word Count (Both) : 2172

16/3,AB/9
DIALOG(R)File 324:German Patents Fulltext

0002932388
OROPHARYNGEAL-TUBUS
Patent Applicant/Assignee:
BERTRAM VOLKER, DE
Inventor(s):
BERTRAM VOLKER, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 4037084 C2 19930722
Application: DE 4037084 19901122
Priority Application: DE 4037084 19901122 (DE 4037084)
Publication Language: German
Fulltext Word Count (English): 2335
Fulltext Word Count (German) : 2019
Fulltext Word Count (Both) : 4354

Abstract (English machine translation)
An **oropharyn**gal tube is used to obtain an artificial air passage after the introduction into the patient of a tracheal tube as a guide for a probe to extract secretions and a fixed holder is offered for the tracheal tube and the tongue is prevented from falling backwards. In addition, the tube is to serve as anti-bite protection for the tracheal tube. For this purpose artificial airways of the Berman type are known which have an open cross-section of T or double-T shape and basically consist of hard material. In order to provide an easily cleaned and manufactured **oropharyn**geal tube which can be used without risk, it is proposed that the tube be given a uniform U-shaped internal contour over its entire length which is open on one side and that the bite block be made in one piece with and of the same material as the tube in the region of the short straight section of said tube.

16/3,AB/11
DIALOG(R)File 324:German Patents Fulltext

0002824120
OROPHARYNGEAL-TUBUS
Patent Applicant/Assignee:
BERTRAM VOLKER, DE
Inventor(s):
BERTRAM VOLKER, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 4037084 A1 19920527
Application: DE 4037084 19901122
Priority Application: DE 4037084 19901122 (DE 4037084)
Publication Language: German
Fulltext Word Count (English): 3053

Fulltext Word Count (German) : 2673
Fulltext Word Count (Both) : 5726

Abstract (English machine translation)
An **oropharyn**gal tube is used to obtain an artificial air passage after the introduction into the patient of a tracheal tube as a guide for a probe to extract secretions and a fixed holder is offered for the tracheal tube and the tongue is prevented from falling backwards. In addition, the tube is to serve as anti-bite protection for the tracheal tube. For this purpose artificial airways of the Berman type are known which have an open cross-section of T or double-T shape and basically consist of hard material. In order to provide an easily cleaned and manufactured **oropharyn**geal tube which can be used without risk, it is proposed that the tube be given a uniform U-shaped internal contour over its entire length which is open on one side and that the bite block be made in one piece with and of the same material as the tube in the region of the short straight section of said tube.

16/3,AB/12
DIALOG(R)File 324:German Patents Fulltext
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0002646175
Patent and Priority Information (Country, Number, Date):
Patent: DE 9007293 U1 19900920
Application: DE 9007293 19900629
Priority Application: DE 4020823 19900629; DE 9007293 U 19900629 (DE 4020823; DE 9007293)
Publication Language: German
Fulltext Word Count (English): 1783
Fulltext Word Count (German) : 1587
Fulltext Word Count (Both) : 3370

18/3,AB/4
DIALOG(R)File 324:German Patents Fulltext
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0003151281
Prevention of snoring
Verfahren zur Anwendung rhenchodepressiver Sustanzen
Patent Applicant/Assignee:
SCHREIBER HANS, DE
Inventor(s):
SCHREIBER HANS DR DR, DE
Patent and Priority Information (Country, Number, Date):
Patent: DE 4412190 A1 19951012
Application: DE 4412190 19940408
Priority Application: DE 4412190 19940408 (DE 4412190)
Publication Language: German
Fulltext Word Count (English): 436
Fulltext Word Count (German) : 378
Fulltext Word Count (Both) : 814

Abstract (English machine translation)

Prevention of rhenchopathy (**snoring**) comprises injecting a biocompatible substance, esp. a biological substance, into or around the velum in order to tighten the tissue. The biocompatible substance is pref. a cross-linked collagen or a substance having a similar activity.

18/3,AB/9
DIALOG(R)File 324:German Patents Fulltext
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0001247168
APPLIANCE ZUM WECKEN OF A PERSON SNORING IN THE SLEEP
VORRICHTUNG ZUM WECKEN EINER IM SCHLAF SCHNARCHENDEN PERSON
Patent Applicant/Assignee:
MACVAUGH GILBERT S DR CHEVY CHASE MD (V ST A),
Inventor(s):
MACVAUGH GILBERT S DR CHEVY CHASE MD (V ST A),
Patent and Priority Information (Country, Number, Date):
Patent: DE 2646643 C3 19791122
Application: DE 646643 19761015
Priority Application: US 75641226 19751216 (US 641226)

18/3,AB/10
DIALOG(R)File 324:German Patents Fulltext
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0001247167
APPLIANCE ZUM WECKEN OF A PERSON SNORING IN THE SLEEP
VORRICHTUNG ZUM WECKEN EINER IM SCHLAF SCHNARCHENDEN PERSON
Patent Applicant/Assignee:
MACVAUGH GILBERT S DR CHEVY CHASE MD (V ST A),
Inventor(s):
MACVAUGH GILBERT S DR CHEVY CHASE MD (V ST A),
Patent and Priority Information (Country, Number, Date):
Patent: DE 2646643 B2 19790329
Application: DE 646643 19761015
Priority Application: US 75641226 19751216 (US 641226)

SYSTEM AND METHOD FOR HYOIDPLASTY

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Abstract of **WO2005058146**

Methods and devices are disclosed for manipulating the hyoid bone, such as to treat obstructive sleep apnea. An implant is positioned adjacent a hyoid bone. The spatial orientation of the hyoid bone is manipulated, to affect the configuration of the airway. The implant restrains the hyoid bone in the manipulated configuration. The implant is positioned adjacent to pharyngeal structures to dilate the pharyngeal airway and/or to support the pharyngeal wall against collapse.